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UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF TEXAS

HOUSTON DIVISION

GEORGIA FIREFIGHTERS' PENSION	§ Civil Action No. 4:20-cv-00576
FUND, Individually and on Behalf of All	§
Others Similarly Situated,	§
	§
Plaintiff,	§
	§
V.	§
	§
ANADARKO PETROLEUM	§
CORPORATION, et al.,	§
The second secon	§
Defendants.	§
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EXPERT REPORT OF BJORN I. STEINHOLT, CFA



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I. INTRODUCTION AND QUALIFICATIONS

- 1. I am a Managing Director at Caliber Advisors, Inc., a full-service financial valuation and economic consulting firm with offices in San Diego, California and Chicago, Illinois. I have more than 30 years of experience providing capital markets consulting, including analyzing and valuing investments. A summary of my background and qualifications is attached as Exhibit A to this report.
- 2. Over the past 20 years, I have been retained on numerous occasions to provide expert opinions relating to market efficiency, materiality, loss causation and damages in securities class actions similar to this litigation. I am frequently asked to analyze market efficiency in a reliance context and have submitted many reports to various federal courts outlining my findings, including in the following cases:
 - Plymouth County Ret. Sys., et al. v. Patterson Cos., Inc., et al., No. 18-cv-00871 (D. Minn. Sept. 28, 2020).
 - Chabot, et al. v. Walgreens Boots Alliance, Inc., et al., No. 18-cv-02118 (M.D. Penn. Jan. 21, 2020);
 - Scheufele, et al v. Tableau Software, Inc., et al., No. 17-cv-05753 (S.D.N.Y. Jan. 16, 2020);
 - In re Sandridge Energy Inc., Sec. Litig., No. 12-cv-01341 (W.D. Okla. Sept. 30, 2019);
 - Villella, et al. v. Chem. & Mining Co. of Chile, Inc., et al., No. 15-cv-02106 (S.D.N.Y. Sept. 24, 2019);
 - In re LendingClub Corp. Sec. Litig., No. 16-cv-02627 (N.D. Cal. Oct. 20, 2017);
 - Willis, et al. v. Big Lots, Inc., et al., No. 12-cv-00604 (S.D. Ohio Mar. 17, 2017);
 - Marcus, et al. v. J.C. Penney Co. Inc., et al., No. 13-cv-00736 (E.D. Tex. Mar. 8, 2017);
 - City of Pontiac Gen. Emps.' Ret. Sys. v. Wal-Mart Stores, Inc., et al., No. 12-cv-05162 (W.D. Ark. Sept. 20, 2016);
 - In re Celera Corp. Sec. Litig., No. 10-cv-02604 (N.D. Cal. Feb. 25, 2014);
 - Smilovits, et al. v. First Solar Inc., et al., No. 12-cv-00555 (D. Ariz. Oct. 8, 2013);

- T Grocery & Food Emps. Welfare Fund v. Regions Fin. Corp., et al., No. 10-cv-02847 (N.D. Ala. June 14, 2012);
- City of Pontiac Gen. Emps. 'Ret. Sys. v. Lockheed Martin Corp., et al., No. 11-cv-05026 (S.D.N.Y. Feb. 14, 2012);
- Siracusano, et al. v. Matrixx Initiatives, et al., No. 04-cv-00886 (D. Ariz. Feb. 27, 2012);
- Luman, et al. v. Anderson, et al., No. 08-cv-00514 (W.D. Mo. Feb. 10, 2012);
- McGuire v. Dendreon Corp., et al., No. 07-cv-00800 (W.D. Wash. May 27, 2010);
- In re Novatel Wireless Sec. Litig., No. 08-cv-01689 (S.D. Cal. May 12, 2010);
- In re Healthsouth Corp. Sec. Litig., No. 03-cv-01501 (N.D. Ala. Mar. 31, 2009);
- Kelleher, et al. v. ADVO, Inc., et al., No. 06-cv-01422 (D. Conn. Mar. 30, 2009); and,
- S Chin, et al. v. Sonus Networks, Inc., et al., No. 04-cv-10294 (D. Mass. Sept. 25, 2007).
- 3. Furthermore, I have provided expert testimony explaining how to calculate class-wide damages using the event-study framework for purposes of class certification. For example, in *J.C. Penney*, the court rejected defendants' criticism of my proposed class-wide damages methodology, agreed it was consistent with plaintiffs' theory of liability, and certified the class.² In *Big Lots*, the court found that my damages methodology was "both relevant and reliable," determined that I had "explained how it is both workable and consistent with [p]laintiffs' theory of liability in this particular case," and certified the class.³ In *Gruber*, the court also accepted my class-wide damages methodology based on a fundamental valuation approach and certified the

In each of these matters listed above, the respective courts granted class certification, consistent with my opinions. The date that class certification was granted is noted in the parentheses.

² See Marcus v. J.C. Penney Co., Inc., 2016 WL 8604331, at *10 (E.D. Tex. Aug. 29, 2016).

³ See Willis v. Big Lots, Inc., 2017 WL 1074048, at *7 (S.D. Ohio Mar. 17, 2017).

class.⁴ In *Patterson*, the court also found my damages model based on the event-study framework sufficiently reliable and certified the class.⁵

- 4. I have also prepared class-wide damages analyses based on the event-study framework for trial. In *Novatel*, the court undertook a rigorous *Daubert* analysis of every element of my comprehensive loss causation and damages methodology and found that "Steinholt's testimony on loss causation and damages, based on his event study analysis, is reasonable and reliable." Other courts have similarly permitted my damages testimony for trial, including in *Employer-Teamsters Joint Council No. 84 Pension Tr. Fund, et al. v. Am. W. Holdings Corp., et al.*, No. 99-cv-0399 (D. Ariz.); *Nursing Home Pension Fund, et al. v. Oracle Corp., et al.*, No. 01-cv-00988 (N.D. Cal.); *In re Neopharm, Inc. Sec. Litig.*, No. 02-cv-02976 (N.D. Ill.); and *Gruber*.
- 5. I received a Master of International Business degree from the University of San Diego and a Bachelor of Science degree in Computer Science and Engineering from California State University, Long Beach. In addition to my graduate business degree and my engineering degree, I have earned the professional designation of Chartered Financial Analyst ("CFA") awarded by the CFA Institute, and I participate in its continuing education program. The CFA designation is a qualification for finance and investment professionals focusing on investment management and securities analyses of common stock, fixed income and other investments.
- My billable rate is currently \$525 per hour. My compensation is not contingent on the outcome of this case or my findings.

See Gruber v. Gilbertson, 2019 WL 4439415, at *8 (S.D.N.Y. Sept. 17, 2019).

See Plymouth Cnty. Ret. Sys. v. Patterson Cos., Inc., 2020 WL 5757695, at *14 (D. Minn. Sept. 28, 2020).

⁶ See In re Novatel Wireless Sec. Litig., 2013 WL 12144150, at *13 (S.D. Cal. Oct. 25, 2013).

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II. OVERVIEW OF ASSIGNMENT

- 7. Counsel for Lead Plaintiff has requested that I determine whether the market in which Anadarko Petroleum Corporation ("Anadarko" or the "Company") common stock traded during the period from February 20, 2015 through May 2, 2017, inclusive (the "Class Period"), was open, developed, and efficient, in that the market prices during this time period quickly changed to reflect new and material information concerning Anadarko as such information became publicly available. In addition, Lead Counsel asked me to determine whether damages can be calculated in this case, using a common damages methodology for the class claims under Section 10(b) of the Securities Exchange Act of 1934 and U.S. Securities & Exchange Commission ("SEC") Rule 10b-5 promulgated thereunder.
- 8. My opinions in this matter are based on my professional experience, as well as my review of a substantial amount of information, including: (a) the Amended Complaint for Violations of the Federal Securities Laws, dated August 17, 2020 (the "Complaint"); (b) the Court's Memorandum and Order, dated January 19, 2021; (c) Defendants' Responses and Objections to Lead Plaintiff's First Set of Requests for Admissions, dated August 27, 2021 ("Defendants' RFA Responses"); (d) public filings by Anadarko with the SEC from 2015 through 2017, including filings on Form 10-K, Form 10-Q, Form 8-K, Proxy Statements and Prospectuses; (e) Anadarko press releases and conference call transcripts from February 2015 through May 2017;

Throughout this report, I use the term "material information" in the manner investors and securities analysts generally use the term, as opposed to a legal conclusion. From an economic point of view, the value of an investment is based on the expected future cash flows of that investment, including the timing and associated risk of those cash flows. Material information, therefore, is information that impacts the future cash flows or the timing or riskiness of the future cash flows. See Jerald E. Pinto, Elaine Henry, Thomas R. Robinson & John D. Stove, Equity Asset Valuation, John Wiley & Sons, 2, 18 (2d ed. 2010) ("The most important type of equity valuation models are present value models. In finance theory, present value models are considered the fundamental approach to equity valuation. . . . A present value model or discounted cash flow model applied to equity valuation derives the value of the common stock as the present or discounted value of its expected future cash flows.").

- (f) securities analyst reports relating to Anadarko and its industry from February 2015 through May 2017; (g) contemporaneous media reports regarding Anadarko and its industry from February 2015 through May 2019; (h) price, volume and other trading information for Anadarko common stock, market and industry indices; and (i) articles, court decisions, and other relevant information cited in this report.
- 9. Based on my review and analysis of the above information, as well as a careful consideration of the market efficiency factors discussed below, it is my opinion that the market in which Anadarko common stock traded throughout the Class Period was impersonal, open, well developed, and efficient in that the market prices quickly responded to incorporate and reflect new, material information as it became publicly available. Consequently, it is my opinion that it was reasonable for investors to rely on the integrity of the market prices of Anadarko's common stock throughout the Class Period as reflecting all publicly available information about the Company.
- 10. Furthermore, based on my experience as a damages expert and consultant in many other securities cases similar to this one, it is my opinion that class-wide damages can be calculated in this case using the event-study damages framework explained in Section V below.
- 11. This report is based on the information I have reviewed to date. I understand that discovery is still ongoing and that additional information may become available. As a result, I reserve the right to amend, refine, or modify my opinion and report, including in the event any additional information or analysis becomes available to me.

III. MARKET EFFICIENCY IN A FRAUD-ON-THE-MARKET CONTEXT

12. An efficient market is one that efficiently processes new and material information.

In an efficient market, new and material information is quickly incorporated into the stock price as different investors buy and sell based on their respective evaluations of the new information

disclosed.⁸ This also means that the resulting stock price will reflect the investors' consensus regarding the stock's value given the available public mix of information.⁹ The driving force that causes markets to be efficient is the competition amongst investors to quickly analyze and trade on new information as it becomes publicly available. As a result of this competition, riskless profit opportunities are short lived and do not persist in efficient markets. This concept has broad empirical support.¹⁰

13. Perhaps the most compelling evidence demonstrating that open and developed securities markets are efficient is the academic research that, time and time again, has shown that professional fund managers are unable to consistently beat the market. For example, a study by Nobel Laureate Eugene Fama (who is generally credited with coining the term "market efficiency") and Kenneth French found that actively traded U.S. mutual funds in the aggregate

How quickly it takes for new information to be incorporated into the stock price depends, in part, on how unexpected and complex the information is. Generally, it is reasonable to assume that new and material information is incorporated into a stock price within one day, although there is also some evidence that it may take longer to become fully incorporated, particularly if the information is complex and there is subsequent analyst and media commentary. See Dmitry Krivin, Robert Patton, Erica Rose & David Tabak, Determination of the Appropriate Event Window Length in Individual Stock Event Studies 20 (NERA Working Paper, Nov. 4, 2003).

This does not mean that all market participants agree on what the true value of the common stock is, as evidenced by the fact that some investors sell as others buy. Rather, it means that the respective investors' views of the stock's true value drives their purchases and sales (i.e., the demand and supply for the stock), which, in turn, becomes the basis for the consensus price set by the overall market.

¹⁰ See, e.g., Burton G. Malkiel, Rethinking the Financial Crisis 75, Russell Sage Found. (2012) ("At its core, EMH [the Efficient Market Hypothesis] implies that arbitrage opportunities for riskless gains do not exist in an efficiently functioning market and that, if they do appear from time to time, they do not persist. The evidence is clear that this version of EMH is strongly supported by the data,").

underperformed the market portfolio after costs.¹¹ The difficulty of outperforming the market is also illustrated by the following frequently cited statement by economist Richard Roll:¹²

Over the past decade, I have attempted to exploit many of the seemingly most promising "inefficiencies" by actually trading significant amounts of money according to a trading rule suggested by the "inefficiencies."...

- ... I have never yet found one that worked in practice, in the sense that it returned more after cost than a buy-and-hold strategy. 13
- 14. While financial economists may hold different views regarding various aspects of market efficiency, they generally agree that securities traded in open and developed markets quickly incorporate and reflect new information as it becomes available. As noted in one academic article:

Financial economists have shown repeatedly that stock prices react quickly to the release of important new information; though they may differ in their interpretations of this evidence, they do agree it exists. Even prominent financial economists with divergent interpretations of the evidence on market efficiency share similar views on how stock prices react to new information.¹⁴

15. For securities class actions, there are two important implications of an efficient market. First, in an efficient market it is reasonable for investors to rely on the integrity of the market price. As explained in a commonly used finance textbook, "[i]n an efficient market you

See Eugene F. Fama & Kenneth R. French, Luck Versus Skill in the Cross-Section of Mutual Fund Returns, 65 J. of Fin. 1915 (2010) ("The aggregate portfolio of actively managed U.S. equity mutual funds is close to the market portfolio, but the high costs of active management show up intact as lower returns to investors. Bootstrap simulations suggest that few funds produce benchmark-adjusted expected returns sufficient to cover their costs.").

According to one common finance text-book, Richard Roll is characterized as someone who "probably knows as much as anyone about market anomalies." Richard Brealey, Stewart Myers & Franklin Allen, *Principles of Corporate Finance* 329 (11th ed. 2014).

¹³ Richard Roll, What Every CFO Should Know About Scientific Progress in Financial Economics: What Is Known and What Remains to be Resolved, 23 Fin. Mgmt. 69, 71 (1994).

Jonathan Macey, Geoffrey Miller, Mark Mitchell & Jeffry Netter, Lessons From Financial Economics: Materiality, Reliance, and Extending the Reach of Basic v. Levinson, 77 Va. L. Rev. 1017, 1026 (1991).

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can trust prices," because they quickly impound new and material information, meaning that "in an efficient market, there is no way for most investors to achieve consistently superior rates of return." This implication is important for the fraud-on-the-market presumption. In Amgen Inc. v. Conn. Ret. Plans & Tr. Funds, 568 U.S. 455 (2013), the U.S. Supreme Court explained:

The fraud-on-the-market theory rests on the premise that certain well developed markets are efficient processors of public information. In such markets, the "market price of shares" will "reflec[t] all publicly available information." Few investors in such markets, if any, can consistently achieve above-market returns by trading based on publicly available information alone, for if such above-market returns were readily attainable, it would mean that market prices were not efficiently incorporating the full supply of public information. See R. Brealey, S. Myers, & F. Allen, Principles of Corporate Finance 330 (10th ed. 2011) ("[I]n an efficient market, there is no way for most investors to achieve consistently superior rates of return.").

In Basic, we held that if a market is shown to be efficient, courts may presume that investors who traded securities in that market relied on public, material misrepresentations regarding those securities. This presumption springs from the very concept of market efficiency. If a market is generally efficient in incorporating publicly available information into a security's market price, it is reasonable to presume that a particular public, material misrepresentation will be reflected in the security's price. Furthermore, it is reasonable to presume that most investors – knowing that they have little hope of outperforming the market in the long run based solely on their analysis of publicly available information – will rely on the security's market price as an unbiased assessment of the security's value in light of all public information.¹⁶

16. In its 2014 opinion in Halliburton Co. v. Erica P. John Fund, Inc., 573 U.S. 258 (2014) ("Halliburton IP"), the U.S. Supreme Court reaffirmed the fraud-on-the-market presumption, and further clarified:

[T]he Basic Court acknowledged [debate amongst academics] and declined to enter the fray, declaring that "[w]e need not determine by adjudication what economists and social scientists have debated through the use of sophisticated statistical analysis and the application of economic theory." To recognize the presumption of reliance, the Court explained, was not "conclusively to adopt any particular theory of how quickly and completely publicly available information is reflected in market price." The Court instead based the presumption on the fairly modest premise that

¹⁵ Brealey, Myers & Allen (2014), *supra* fn. 12, at 337.

Amgen, 568 U.S. at 461-62 (citations omitted and alteration in original).

"market professionals generally consider most publicly announced material statements about companies, thereby affecting stock market prices."...

The academic debates discussed by Halliburton have not refuted the modest premise underlying the presumption of reliance. Even the foremost critics of the efficient-capital-markets hypothesis acknowledge that public information generally affects stock prices.¹⁷

- 17. Second, in an efficient market, the impact of the alleged misrepresentations or omissions can be estimated, and class-wide damages quantified, based on an analysis of the market prices using an event study.¹⁸ This is so because the "alleged misrepresentations and omissions, whether material or immaterial, would be so equally for all investors composing the class," and that, therefore, the Class "will prevail or fail in unison." I will explain in greater detail how damages can be quantified on a class-wide basis in this case in Section V below.
- 18. In Cammer v. Bloom, 711 F. Supp. 1264 (D.N.J. 1989), the court analyzed the criteria that should be evaluated in determining whether a market is efficient. The Cammer court asked for evidence that the stock traded in an open and developed market, and provided five factors to assess market efficiency, including evidence showing that the market participants had the sophistication to understand the economic implications of new and material information (market makers/institutions); that market participants analyzed the information (analyst coverage); and that market participants traded on the information (trading volume). In my experience, and from an economic point of view, these factors are useful in determining whether a market was open and developed, and would be expected to efficiently process new, material information. As discussed above, academic research has shown that equity securities that trade in such markets react to new

¹⁷ Halliburton II, 573 U.S. at 271-72 (citations omitted and some alteration in original).

¹⁸ See, e.g., Mark L. Mitchell & Jeffry M. Netter, The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission, 49 Bus. Law 545 (1994).

¹⁹ Amgen, 568 U.S. at 459-60.

and material information so that it is extremely difficult, if not impossible, to consistently outperform the overall market.²⁰ Consequently, in such markets, it would be reasonable to rely on the integrity of the market prices. *Cammer* also explained that it would be "helpful" to demonstrate that the stock price in question quickly reacted to new and material company-specific information, as this represents direct evidence of market efficiency. Below, I analyze the *Cammer* factors used to assess market efficiency and explain how each supports a finding of market efficiency for Anadarko's common stock throughout the Class Period.

IV. ANALYSIS OF MARKET EFFICIENCY

19. In Cammer, the court provided some general guidelines as to how to analyze market efficiency in a fraud-on-the-market context, and provided five specific factors to analyze. The first four factors are so-called indirect factors, as they provide evidence that the competitive environment which facilitates market efficiency was in place. From an economic point of view, the indirect factors are, by themselves, commonly viewed to be sufficient to establish market efficiency in a reliance context.²¹ Courts have also recognized this economic reality.²²

²⁰ See Malkiel (2012), supra fn. 10; Fama & French (2010), supra fn. 11; and Macey, Miller, Mitchell & Netter (1991), supra fn. 14.

See Bradford Cornell & James C. Rutten, Market Efficiency, Crashes, and Securities Litigation, 81 Tulane L. Rev. 443, 457 (2006) ("There is almost no dispute, however, that for securities traded in 'open and developed' markets as measured by the Cammer and Krogman criteria, it is reasonable for all but the most sophisticated investors to rely on the market prices. There is thus little dispute that with respect to such securities, reliance on the integrity of the market prices (and thus on the defendants' statements) is appropriately presumed.") (footnote omitted).

For example, the Second Circuit has stated that "district courts in this and other Circuits regularly consider five factors first set forth in Cammer v. Bloom," with the "first four Cammer factors '[being] particularly valuable in situations where direct evidence does not entirely resolve the question' of market efficiency," and explaining that "a plaintiff seeking to demonstrate market efficiency need not always present direct evidence of price impact through event studies [i.e., the fifth Cammer factor]." Waggoner v. Barclays PLC, 875 F.3d 79, 94, 97 (2d Cir. 2017) (citation omitted and emphasis in original).

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20. Cammer also explained that a fifth factor demonstrating "cause and effect" would be "helpful" because it provides direct evidence of market efficiency. Below, I will discuss the Cammer factors in the context of Anadarko's common stock price. In addition, I will discuss three additional factors included in Krogman v. Sterritt, 202 F.R.D. 467 (N.D. Tex. 2001), that some courts also consider as being relevant to assessing market efficiency. 24

A. Trading on the New York Stock Exchange Supports My Conclusion that Anadarko Traded in an Efficient Market.

21. During the entire Class Period, Anadarko's common stock was listed and traded on the New York Stock Exchange, or NYSE, under the ticker symbol "APC." The NYSE is one of the largest and most sophisticated securities markets in the world, and, as a result, market efficiency is commonly presumed for securities that trade on the NYSE. As stated by Michael C. Jensen, a well-known Harvard economist:

I believe there is no other proposition in economics which has more solid empirical evidence supporting it than the Efficient Market Hypothesis. That hypothesis has been tested and, with very few exceptions, found consistent with the data in a wide variety of markets: the New York and American Stock Exchanges, the Australian, English, and German stock markets....²⁵

Cammer does not appear to require that Cammer factor five necessarily be satisfied (at least not if the other factors are satisfied), stating: "As previously noted, one of the most convincing ways to demonstrate efficiency would be to illustrate, over time, a cause and effect relationship between company disclosures and resulting movements in stock price. However, as mentioned, such a showing ... would be difficult because it would require exploration of materiality and causation issues. . . . [P]laintiffs will not be required to delve into such issues at this early stage." Cammer, 711 F. Supp. at 1291-92.

These additional factors are: (a) market capitalization, which for Anadarko ranged from \$15 billion to \$50 billion during the Class Period; (b) bid-ask spread, which for Anadarko's common stock averaged approximately \$0.02 per share during the Class Period; and (c) the public float, or the Company's common stock in public hands (i.e., excluding shares owned by insiders), which for Anadarko exceeded 500 million shares and ranged from \$15 billion to \$50 billion during the Class Period. As explained below, all of these additional factors are also consistent with Anadarko trading in an efficient market during the Class Period.

Michael C. Jensen, Some Anomalous Evidence Regarding Market Efficiency, 6 J. of Fin. Econ. 95 (1978).

- 22. Although it is not explicitly a *Cammer* factor, the *Cammer* opinion discusses the importance of a security being listed and traded on a national exchange when analyzing market efficiency.²⁶ In this case, the fact that Anadarko's common stock was listed and traded on the NYSE throughout the Class Period supports my opinion that it traded in an efficient market. This is consistent with empirical evidence that few, if any, professional fund managers investing in the U.S. stock market (NYSE and NASDAQ) are able to outperform the market on a consistent basis.²⁷
 - B. Cammer Factor 1: Large Trading Volume Supports My Conclusion that Anadarko Traded in an Efficient Market.
- 23. The first *Cammer* factor relates to Anadarko's trading volume. ²⁸ In its opinion, the *Cammer* court explained:

The reason the existence of an actively traded market, as evidenced by a large weekly volume of stock trades, suggests there is an efficient market is because it implies significant investor interest in the company. Such interest, in turn, implies a likelihood that many investors are executing trades on the basis of newly available or disseminated corporate information.²⁹

During the Class Period, Anadarko had a total reported trading volume of at least
 billion shares with a dollar trading volume of approximately \$178 billion.³⁰ During this same

Cammer, 711 F. Supp. at 1292 ("We think that, at a minimum, there should be a presumption – probably conditional for class determination – that certain markets are developed and efficient for virtually all the securities traded there: the New York and American Stock Exchanges") (quoting 4 Alan R. Bromberg & Lewis D. Lowenfels, Securities Fraud and Commodities Fraud §8.6 (1988)).

²⁷ Supra fn. 11.

Academic research has found that trading volume is one factor "that systematically differentiate[s] between efficiently and inefficiently priced stocks." Brad M. Barber, Paul A. Griffin & Baruch Lev, *The Fraud-on-the-Market Theory and the Indicators of Common Stocks' Efficiency*, 19 J. of Corp. L. 285 (1994).

²⁹ Cammer, 711 F. Supp. at 1286.

³⁰ See Exhibit B, attached hereto; see also Defendants' RFA Responses, at 6 ("Defendants admit that according to [CRSP Data]..., the reported trading volume during the Class Period for Anadarko common stock was at least 2.9 billion shares.").

time period, the average reported daily trading volume for Anadarko exceeded 5 million shares with an average daily dollar volume of approximately \$320 million.³¹ This demonstrates that there was "significant investor interest" in Anadarko stock, and that there were willing buyers and sellers who provided liquidity for the stock. The substantial amount of daily trading supports my opinion that Anadarko traded in an efficient market throughout the Class Period.

25. One authority quoted in *Cammer* stated that "'[t]urnover measured by average weekly trading of 2% or more of the outstanding shares would justify a strong presumption that the market for the security is an efficient one; 1% would justify a substantial presumption."³² During the Class Period, Anadarko's average weekly trading volume was approximately 5%, thereby exceeding the benchmark used by some courts to justify a "strong presumption" of market efficiency.³³ The Company's high share turnover also supports my opinion that Anadarko common stock traded in an efficient market throughout the Class Period.

C. Cammer Factor 2: Substantial Analyst Coverage Supports My Conclusion that Anadarko Traded in an Efficient Market.

26. The second *Cammer* factor relates to the number of securities analysts that followed and reported on Anadarko during the Class Period.³⁴ In its opinion, the *Cammer* court explained:

The existence of such analysts would imply, for example, the [Company] reports were closely reviewed by investment professionals, who would in turn make buy/sell recommendations to client investors. In this way the market price of the

³¹ Exhibit B, attached hereto.

³² Cammer, 711 F. Supp. at 1293 (quoting Bromberg & Lowenfels (1988)).

See Exhibit B; see also Defendants' RFA Responses, at 9 ("Defendants admit that according to CRSP Data, during the Class Period the average of the percentage of the weekly number of shares of Anadarko common stock that traded to the number of outstanding shares of Anadarko common stock was more than 4.5%.").

Academic research has found that analyst coverage is another factor "that systematically differentiate[s] between efficiently and inefficiently priced stocks." Barber, Griffin & Lev (1994), supra fn. 28.

stock would be bid up or down to reflect the financial information contained in the [Company] reports, as interpreted by the securities analysts.³⁵

27. Analyst coverage refers to securities analysts who follow, analyze and report on a company to their clients.³⁶ Many firms do not have any analyst coverage and are, therefore, more likely to trade in less efficient markets than firms with analyst coverage.³⁷ According to Bloomberg (a major data and news source to the investment industry), Anadarko had at least 37 analyst firms that followed the Company during the Class Period.³⁸ Firms following and issuing analyst reports on Anadarko during the Class Period included: (a) Acquisdata, Inc.; (b) Barclays Capital Inc.; (c) BofA Securities, Inc.; (d) BMO Capital Markets Corp.; (e) Citigroup Global Markets Inc.; (f) Cowen and Company, LLC; (g) Credit Suisse Securities (USA) LLC; (h) Deutsche Bank Securities Inc.; (i) Evercore Group L.L.C.; (j) Goldman Sachs Group, Inc.; (k) Guggenheim Securities, LLC; (l) Imperial Capital, LLC; (m) Jefferies Equity Research; (n) J.P. Morgan Securities LLC; (o) KLR Group, LLC; (p) Ladenburn, Thalmann & Co. Inc.; (q) Morgan Stanley & Co. LLC; (r) MUFG Securities America, Inc.; (s) Oppenheimer & Co. Inc.; (t) Piper Sandler & Co.; (u) RBC Capital Markets, LLC; (v) Sanford C. Bernstein & Co., LLC; (w) SG

³⁵ Cammer, 711 F. Supp. at 1286 (footnote omitted).

Analysts providing analysis and recommendations to their clients are commonly referred to as sell-side analysts. In addition, public companies are also followed by a presumably much larger number of so-called buy-side analysts, or analysts who work for investment firms and whose research is generally used internally by these firms to make investment decisions. Information on the number of buy-side analysts of a particular company is not publicly available.

³⁷ See supra fn. 34. One study found that approximately 35% of a large sample of publicly traded firms in the United States did not have any analyst coverage. Fang (Frank) Yu, Analyst Coverage and Earnings Management, 88 J. of Fin. Econ. 245 (2008). Another study found that the median and mean number of analysts covering a company was one and five, respectively. Pandej Chintrakarn, Pornsit Jiraporn, Young S. Kim & Jang Chul Kim, Does Corporate Governance Quality Affect Analyst Coverage? Evidence from the Institutional Shareholder Services (ISS), SSRN Working Paper, http://ssrn.com/abstract=2458841.

³⁸ Bloomberg: APC US ANR, 5/2/2017.

American Securities, LLC; (x) Stifel, Nicolaus & Co., Inc.; (y) UBS Securities LLC; (z) Wells Fargo Securities LLC; and (aa) Wolfe Research, LLC.³⁹

- 28. So far, I have reviewed more than 600 analyst reports covering Anadarko for the relevant time period of February 2015 through May 2017. Furthermore, more than 5,000 media accounts (including Company press releases, earnings announcements, conference calls, articles and other notifications), were available on *Bloomberg* (APC US Equity, CN) during the relevant time period from February 2015 through May 2017. This demonstrates that the Company news and related information was widely available and discussed in the media. The availability of such relevant Company-specific information also facilitates market efficiency.
- 29. The information above about the analyst and news coverage of the Company during the Class Period supports my opinion that Anadarko's common stock traded in an efficient market throughout the Class Period.
 - D. Cammer Factor 3: Significant Number of Liquidity Providers and Institutional Investors in Anadarko's Common Stock Supports My Conclusion that Anadarko Traded in an Efficient Market.
- 30. The third *Cammer* factor relates to the number of arbitrageurs, market makers and/or other sophisticated investors, such as institutional investors, who traded Anadarko common stock during the Class Period. In its opinion, the *Cammer* court explained:

Third, it could be alleged the stock had numerous market makers. The existence of market makers and arbitrageurs would ensure completion of the market mechanism; these individuals would react swiftly to company news and reported financial results by buying or selling stock and driving it to a changed price level.⁴⁰

31. Transactions on the NYSE do not go through market makers, as the term was used in *Cammer*. Rather, transactions on the NYSE go through a designated market maker ("DMM"),

³⁹ See Defendants' RFA Responses, at 11-12 ("Defendants admit that [the above entities] issued one or more research reports concerning Anadarko during the Class Period.").

⁴⁰ Cammer, 711 F. Supp. at 1286-87.

formerly known as the specialist, who is responsible for maintaining a fair, competitive, orderly and efficient market for the security assigned to them. The DMM is responsible for maintaining orderly trading while continually showing the best bids and offers, and will enter into a transaction using its own capital if there is a willing buyer or seller with no counter party. As a result, the DMM has a substantial economic interest in closely monitoring all the publicly available information relating to the company it is assigned to. The DMM system enables investors to trade continuously during market hours in an orderly and liquid market, thereby facilitating market efficiency.

32. That said, not all transactions for NYSE-listed stocks go through the NYSE. In 2005, the SEC adopted REG NMS (Regulation National Market System) requiring orders to be executed at the best price, fostering competition amongst the exchanges. This means that NYSElisted stocks only trade through the NYSE if it provides the best price, or best bid and offer. If not, transactions go through one of the other exchanges, i.e., the exchange with the best price. These other exchanges, such as NASDAQ, do have market makers or liquidity providers. According to Bloomberg, out of more than 150 supplemental liquidity providers for Anadarko's common stock, there were 41 such liquidity providers listed for Anadarko with volume of at least 1,000,000 from February 2015 through May 2017. Bloomberg APC US Equity, BAS. Firms identified as market makers include: (a) Morgan Stanley & Company Inc.; (b) UBS Securities; (c) Barclays Capital Inc.; (d) Tradebot Systems, Inc.; (e) Quantlab Securities LP; (f) Goldman Sachs; (g) Instinct Corporation; (h) Citigroup Global Markets Inc.; (i) GTS Securities LLC; (j) Jump Trading, LLC; (k) Sanford C. Bernstein and Co.; (l) Fox River Execution Technology, LLC; (m) BNP Paribas Securities Corp.; (n) Timber Hill LLC; (o) Merrill Lynch, Pierce, Fenner & Smith Incorporated; (p) Lek Securities Corporation; (q) Wedbush Morgan Securities Inc.; (r) Interactive Brokers, LLC; (s) Wells Fargo Securities, LLC; (t) Citadel Securities LLC; (u) Goldman Sachs

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Execution & Clearing, L.P.; (v) Scottrade, Inc.; (w) Wolverine Execution Services, LLC; (x) BNY Mellon Capital Markets, LLC; (y) Cutler Group, LP; (z) Goldman Sachs & Co.; and (aa) ITG Inc.⁴¹

quickly evaluate new information and understand its potential impact on the value of a security, and who then take appropriate investment actions causing the new information to become reflected in the price of the security. The presence of sophisticated investors is an important factor ensuring that a security is traded in an efficient market.⁴² Institutional investors are such sophisticated investors. Consequently, I examined the available information on institutional ownership of Anadarko common stock from March 31, 2015, through March 31, 2017 (*i.e.*, quarters during the Class Period). This information is generally only available on a quarterly basis, and is therefore not a complete list of all sophisticated investors who may have owned Anadarko common stock during the Class Period. According to the available information, there were more than 1,800 institutional investors that reportedly owned more than 440 million Anadarko shares during the Class Period, making up more than 86% of the Company's shares outstanding.⁴³ Again, institutional investors are generally considered to be sophisticated investors that are able to quickly evaluate new information and understand its potential impact on the value of a security, and who then take appropriate investment actions causing the new information to become reflected in the

⁴¹ See Defendants' RFA Responses, at 9-11 ("Defendants admit that according to data obtained from Bloomberg L.P., [the above entities] were market makers in Anadarko common stock at some point during the Class Period.").

⁴² Academic research has shown that efficiently traded firms tend to have higher institutional ownership than inefficiently traded firms. Barber, Griffin & Lev (1994), *supra* fn. 28.

⁴³ See Exhibit C, attached hereto; see also Defendants' RFA Responses, at 8 ("Defendants admit that according to data obtained from ThomsonOne, over 1,400 institutional investors reported holding Anadarko common stock at some point throughout the Class Period.").

price of the security. The substantial presence of sophisticated institutional investors supports my opinion that Anadarko's common stock traded in an efficient market.

- E. Cammer Factor 4: Anadarko was Eligible to File on Form S-3.
- 34. The fourth Cammer factor relates to Anadarko's eligibility to file on Form S-3.
 According to the Cammer court:

Fourth, as discussed, it would be helpful to allege the Company was entitled to file an S-3 Registration Statement in connection with public offerings or, if ineligible, such ineligibility was only because of timing factors rather than because the minimum stock requirements set forth in the instructions to Form S-3 were not met. Again, it is the number of shares traded and value of shares outstanding that involve the facts which imply efficiency.⁴⁴

- 35. To be eligible to file on Form S-3, a company has to be an SEC reporting company for at least 12 months and have \$75 million in voting stock held by non-affiliates (average during 60-day period prior to filing). Anadarko met both of these requirements and, on August 12, 2016, the Company did file on Form S-3. Consequently, Anadarko meets the *Cammer* factor four benchmark.
 - F. Cammer Factor 5: Material Market, Industry and Company-Specific Information Was Quickly Incorporated into Anadarko's Stock Price, Supporting My Conclusion that Anadarko Traded in an Efficient Market.
- 36. The direct test of market efficiency relates to whether a stock price quickly reacts to unexpected new material information. While *Cammer* factors one through four, discussed above, provide evidence that the competitive environment that facilitates market efficiency was in place during the Class Period, the last *Cammer* factor calls for some empirical evidence that

⁴⁴ Cammer, 711 F. Supp. at 1287.

⁴⁵ General Instruction I.B.1 to Form S-3, https://www.sec.gov/files/forms-3.pdf.

⁴⁶ See Defendants' RFA Responses, at 18 ("Defendants admit that Anadarko was eligible to file a Form S-3 at all times during the Class Period.").

Anadarko's common stock price quickly incorporated new and material information. More specifically, in its opinion, the *Cammer* court explained:

Finally, it would be helpful to a plaintiff seeking to allege an efficient market to allege empirical facts showing a cause and effect relationship between unexpected corporate events or financial releases and an immediate response in the stock price. This, after all, is the essence of an efficient market and the foundation for the fraud on the market theory.⁴⁷

37. The analysis of the impact of new information (the event, such as a financial release) on securities prices is generally performed using an event study.⁴⁸ The event study *first* determines the statistical relationship between the stock price returns of the company and the returns on market and/or industry indices during a control period using a regression analysis.⁴⁹ In this case, I used the S&P 500 index to control for market factors and an equally weighted index of Anadarko's peers to control for industry factors ("Peer Group"), both identified and used by the Company as proxy for the market and industry during the relevant time period.⁵⁰

⁴⁷ Cammer, 711 F. Supp. at 1287.

An event study is a statistical tool that first determines the normal statistical relationship between the stock price and that of market and industry indices; and then, second, uses this statistical relationship to quantify the residual return (i.e., the price reaction net of market and industry factors). If the magnitude of the price reaction is statistically significant, or unlikely to have occurred simply by chance, the residual return is commonly attributed to the new information disclosed and is viewed as proof of cause and effect. For an explanation of the event-study methodology as used in securities fraud cases, see Mitchell & Netter (1994), supra fn. 18.

For the purpose of analyzing market efficiency, I used the one-year period (252 trading days) prior to each event/day analyzed as the control period, excluding dates with financial releases. For the purpose of quantifying damages, or the impact of the alleged fraud, it may be necessary to modify the event study somewhat to properly isolate the fraud-related component of the price movement (a slightly different purpose than the more general market efficiency analysis).

See Anadarko 2016 Form 10-K, filed with the SEC on February 17, 2017, at 51. The Peer Group index is based on the equally weighted returns of: Apache Corporation; Chesapeake Energy Corporation; Chevron Corporation; ConocoPhillips; Devon Energy Corporation; EOG Resources, Inc.; Hess Corporation; Marathon Oil Corporation; Noble Energy, Inc.; Occidental Petroleum Corporation; and Pioneer Natural Resources Company. While I used these companies to construct a Peer Group for the purposes of analyzing market efficiency, it may be necessary to modify the Peer Group slightly for the purpose of isolating the fraud-related component of a price movement.

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- 38. Second, the actual stock price return on the event day analyzed is compared to the return predicted by the regression to determine the excess (or abnormal) return, i.e., the stock's return on the event day net of market and/or industry factors. The excess return can also be used to determine the so-called p-value, the probability of an equal or greater absolute return occurring randomly. A price movement with a p-value of 5% or less is defined as being statistically significant at the 5% level, while a price movement with a p-value of 1% or less is defined as being statistically significant at the 1% level.⁵¹ Attached as Exhibit D are the statistical results of my event analyses for each day during the Class Period.⁵²
- 39. Cammer factor five calls for empirical evidence that shows that new and material information was quickly incorporated into Anadarko's stock price throughout the Class Period. To analyze whether new and material <u>market</u> information was quickly (within one day) incorporated into Anadarko's stock price, I ran a regression of Anadarko's returns against the market index (S&P 500) during the Class Period. Based on this regression, there was a statistically significant relationship between the market index (S&P 500) and Anadarko, indicating that new and material <u>market</u> information was quickly incorporated into the Company's stock price. Specifically, the t-statistic associated with the S&P 500 in my regression analysis was 27.0, far exceeding the 1.96 value for statistical significance at the 5% level (two-tailed).

Similarly, a price movement with a p-value of 10% or less is defined as being statistically significant at the 10% level.

The daily statistical analysis determines the so-called "t-statistic," or the abnormal return on a particular day divided by the standard deviation (or standard error) during the control period. The t-statistic can then be translated into a p-value, or probability of an equal or greater absolute return occurring randomly. A t-statistic with an absolute value greater than 1.96 is defined as being statistically significant at the 5% level, using a two-tailed test (testing for large negative <u>and</u> large positive returns). A t-statistic with a value greater than 1.645 (or less than -1.645) is defined as being a statistically significant price increase (or decrease) at the 5% level, using a one-tailed test (testing either for large positive <u>or</u> for large negative returns, but not both).

- 40. Similarly, there was a statistically significant relationship between the Peer Group index's residual returns (which means returns net of market, *i.e.*, net of the S&P 500 returns) and Anadarko as well, indicating that new and material *industry* information was also quickly incorporated into the Company's stock price. Specifically, the t-statistic associated with the Peer Group index's residuals in my regression was 32.7. Again, the t-statistic far exceeded the 1.96 value for statistical significance at the 5% level (two-tailed).
- 41. To assess "cause and effect" relating to <u>Company-specific</u> information, I analyzed whether the information disclosed in Anadarko's "financial releases" impacted the Company's stock price, as suggested by <u>Cammer</u>. Financial releases generally provide new information to investors and, therefore, they have a greater likelihood of materially altering the public mix of information, as noted in <u>Cammer</u> above. For my purposes, I examined the price reaction (or absence thereof) following each of the financial releases from 1Q2015 through 1Q2017, a total of nine financial releases. In a random sample, there is one chance out of twenty of ending up with a statistically significant price reaction at the 5% level simply by chance (1 / 20 = 5%). In this case, five out of the nine financial releases I examined were statistically significant at the 5% level. The cumulative probability of five or more days out of nine being statistically significant at the 5% level simply by chance is one in more than 30,000 (far exceeding the 1 out of 20, or the

That said, just because the Company announced earnings does not mean that one would necessarily expect there to be a statistically significant price movement because the totality of the information disclosed could still be interpreted by the market as being neutral, or the correct impact could still be expected to be less than the magnitude needed to meet a benchmark for statistical significance.

⁵⁴ See Exhibit D, attached hereto, days with financial releases bolded.

5% benchmark).⁵⁵ Consequently, the statistical evidence is very strong that new and material Company-specific information was quickly incorporated into Anadarko's stock price.⁵⁶

- 42. Finally, to assess "cause and effect" relating to <u>Company-specific</u> information, I also examined Anadarko's price reactions following the alleged corrective disclosure after the market closed on May 2, 2017.⁵⁷ This evidence, on its own, is sometimes viewed as the only evidence needed to prove market efficiency in a reliance context. For example, Fisher (2005) explains: "If an event study shows that a ... corrective disclosure had a statistically significant effect on the price of a stock, then the market may be said to have 'relied' on the misrepresentation." Similarly, Macey, Miller, Mitchell & Netter (1991) explains: "A plaintiff need show only that the misstatement affected the security return by testing for an abnormal return ... when the fact that it was a misstatement became known to the public and that the abnormal return was statistically significant. If the abnormal return is found statistically significant, we suggest that a court should consider the misstatement material and presume reliance by a plaintiff on the integrity of the market price." Significant.
- 43. On May 2, 2017, after the market had closed, Anadarko announced its 1Q2017 financial results, filed its 1Q2017 Form 10-Q, and held a conference call discussing its results.

The cumulative probability was calculated using the binomial distribution. Richard A. DeFusco, Dennis W. McLeavey, Jerald E. Pinto & David E. Runkle, *Quantitative Investment Analysis*, John Wiley & Sons, Inc. (2nd ed. 2007), at 178-179.

⁵⁶ I also reviewed the media and analyst reports to confirm that, on days with statistically significant price declines, there was negative information disclosed that could explain the price declines, and on days with statistically significant price increases, there was positive information disclosed that could explain the price increases.

⁵⁷ Complaint, ¶¶151-153.

⁵⁸ William O. Fisher, Does the Efficient Market Theory Help Us Do Justice in a Time of Madness?, 54 Emory L.J. 843, 874 (2005).

Macey, Miller, Mitchell & Netter (1991), supra fn. 14, at 1029.

Among other things, the Company disclosed that it had suspended further appraisal activities at Shenandoah,⁶⁰ taking a \$467 million impairment charge and expensing \$435 million related to the project.⁶¹ This disclosure ends the Class Period alleged in the Complaint.

- 44. Following Anadarko's May 2, 2017 disclosure about Shenandoah, Anadarko's stock price declined from a closing price of \$56.28 per share on May 2, 2017, to a closing price of \$51.95 per share on May 3, 2017, a decrease of \$4.33 per share, or 7.69%, on volume of more than 22 million shares (five times the median trading volume during the Class Period). The May 3, 2017 residual decline in Anadarko's stock price was statistically significant at the 1% level. The evidence above shows that investors quickly analyzed and traded on the new and material information disclosed regarding Anadarko, and that the negative economic implication of the information was quickly incorporated into Anadarko's stock price.
- 45. Based on the above, it is my opinion that new and material (1) <u>market</u>, (2) <u>industry</u>, and (3) <u>Company-specific</u> information was quickly analyzed by market participants, who then traded on the information, resulting in the information efficiently becoming reflected in Anadarko's stock price throughout the Class Period.

G. Krogman Factor 1: Large Market Capitalization Satisfied

46. The first *Krogman* factor⁶³ relates to the total market capitalization of Anadarko's equity. In its opinion, the *Krogman* court stated:

Market capitalization, calculated as the number of shares multiplied by the prevailing share price, may be an indicator of market efficiency because there is a

Anadarko May 2, 2017 Press Release, "Anadarko Announces First-Quarter 2017 Results."

⁶¹ Anadarko 1Q2017 Form 10-Q, filed with the SEC on May 2, 2017, at 12-13.

⁶² See Exhibit D, at 14, attached hereto.

⁶³ See supra fn. 24 (list of Krogman factors).

greater incentive for stock purchasers to invest in more highly capitalized corporations.⁶⁴

47. During the Class Period, the Company's market capitalization ranged from \$15 billion to \$50 billion.⁶⁵ This market capitalization is significantly greater than the \$75 million benchmark in *Cammer* factor four, and would provide a sufficient economic incentive for the Company's common stock purchasers to invest in and monitor Anadarko. Based on the above, it is my opinion that *Krogman* factor one has been satisfied.

H. Krogman Factor 2: Small Bid-Ask Spread Satisfied

48. The second *Krogman* factor relates to Anadarko's bid-ask spread. In its opinion, the *Krogman* court stated:

The bid-ask spread is the difference between the price at which investors are willing to buy the stock and the price at which current stockholders are willing to sell their shares. A large bid-ask spread is indicative of an inefficient market, because it suggests that the stock is too expensive to trade.⁶⁶

49. During the Class Period, the average bid-ask spread for Anadarko's common stock was approximately \$0.02 per share, or roughly 0.2% of the closing price.⁶⁷ By comparison, in 1991, two years following the *Cammer* decision (1989), the vast majority of dollar spreads on the NYSE exceeded one-eighth (\$0.125), or significantly larger than the average \$0.02 per share dollar

⁶⁴ Krogman, 202 F.R.D. at 478.

⁶⁵ Bloomberg APC US Equity; see also Defendants' RFA Responses, at 8 ("Defendants admit that according to CRSP Data, the market capitalization of Anadarko during the Class Period was greater than \$15 billion and less than \$50 billion.").

⁶⁶ Krogman, 202 F.R.D. at 478 (citation omitted).

Bloomberg APC US Equity; see also Defendants' RFA Responses, at 16-17 ("Defendants admit that according to data obtained from Bloomberg L.P., the average bid-ask spread for Anadarko's common stock was less than \$0.02 per share throughout the Class Period," and "Defendants admit that according to data obtained from Bloomberg L.P., Anadarko's average bid-ask spread as a percentage of its ask price was approximately 0.02% throughout the Class Period.").

spread for Anadarko.⁶⁸ In other words, the bid-ask spread for Anadarko's common stock was so low that it would not make its common stock "too expensive" for investors to trade. Based on the above, it is my opinion that *Krogman* factor two has been satisfied.

I. Krogman Factor 3: Large Float Satisfied

50. The third *Krogman* factor relates to Anadarko's float, *i.e.*, shares in public hands.

In its opinion, the *Krogman* court stated:

In determining efficiency, courts also consider the percentage of shares held by the public, rather than insiders. "Because insiders may have private information that is not yet reflected in stock prices, the prices of stocks that have greater holdings by insiders are less likely to accurately reflect all available information about the security." ⁶⁹

51. According to *Bloomberg*, Anadarko's public float, or the Company's common stock held in public hands (*i.e.*, excluding shares owned by insiders), exceeded 500 million shares and ranged from \$15 billion to \$50 billion during the Class Period. According to *Bloomberg*, Anadarko's float accounted for the vast majority, or more than 99%, of the Company's shares outstanding during the Class Period. The market value of Anadarko's float (ranging from \$15 billion to \$50 billion during the Class Period) exceeds the \$75 million benchmark in *Cammer* factor four, thereby providing sufficient economic incentive for Anadarko common stock holders

⁶⁸ William G. Christie & Paul H. Schultz, Why do NASDAQ Market Makers Avoid Odd-Eighth Quotes?, 49 J. of Fin. 1819 (1994).

⁶⁹ Krogman, 202 F.R.D. at 478 (citation omitted and quoting defendants' expert).

Bloomberg APC US Equity; see also Defendants' RFA Responses, at 15 ("Defendants admit that according to data obtained from S&P Capital IQ, the dollar value of Anadarko's public float was greater than or equal to \$15 billion and less than \$50 billion throughout the Class Period.").

Ploomberg APC US Equity; see also Defendants' RFA Responses, at 16 ("Defendants admit that according to data obtained from S&P Capital IQ, Anadarko's average public float accounted for over 99% of Anadarko's shares outstanding throughout the Class Period.").

to invest in the Company. Based on the above, it is my opinion that *Krogman* factor three has been satisfied.

- J. Conclusion: The Cammer and Krogman Factors Support My Opinion that Anadarko Traded in an Efficient Market throughout the Class Period.
- 52. The various analyses discussed above demonstrate that new and material (1) market, (2) industry, and (3) Company-specific information was incorporated into Anadarko's stock price during the Class Period, as one would expect in an efficient market. Specifically, the evidence I reviewed shows that new and material information about Anadarko was widely disseminated to the market, analyzed by market participants and traded on, causing the information to be quickly reflected in the Company's stock price.

V. USING THE EVENT-STUDY FRAMEWORK TO CALCULATE CLASS-WIDE DAMAGES

- 53. I have also been asked to explain how class-wide damages can be calculated in this case using a common damages methodology that is consistent with Lead Plaintiff's theory of liability. Ultimately, the quantification of damages will depend on a full factual record and on what evidence is presented at trial, including evidence obtained from fact discovery that has yet to be completed. It is important to note that I have not yet conducted a loss causation analysis and reserve the right to address any such issues at the appropriate stage of this case.
- 54. Securities fraud cases generally involve allegations that defendants engaged in a fraudulent scheme, made untrue or misleading statements, concealed material information, and/or engaged in a deceitful business practice. The information defendants suppressed during the Class Period is commonly referred to as the alleged truth, or relevant truth. In an efficient market, the suppression of an alleged truth that is materially different from the public mix of information will distort the stock price and cause it to trade at artificially inflated prices. Investors who overpaid for their shares as a result of the artificially inflated prices are then damaged when the alleged truth

is disclosed (or partially disclosed) and the stock price declines as a result. Consequently, quantifying the fraud-related portion of the price decline caused by the disclosure of the alleged truth is key to quantifying class-wide damages.

- 55. The event-study framework is a well-accepted framework for calculating class-wide damages in class action securities cases. First, the fraud-related impact of the disclosure of the alleged truth (*i.e.*, the event) on the stock price is quantified using an event study, which is sometimes also refined using fundamental valuation tools. The event-study methodology is discussed in greater detail above. The fundamental valuation tools are based on the premise that the present value of an investment is a reflection of its future cash flows, including the riskiness of these cash flows, generally using the income approach (discounted cash flow approach) and the market approach (market multiples on various financial metrics). The cost approach (an analysis of the various costs a company is willing to incur to monetize an asset) may also be an indication of the minimum value of that asset. These are the same types of valuation tools commonly used by investors when making buy or sell decisions and securities analysts when making investment recommendations.
- 56. Second, this fraud-related impact is then used as the inflation from the first misrepresentation until the disclosure of the alleged truth, known as an inflation ribbon. If there are multiple partial disclosures of the alleged truth, then multiple inflation ribbons are used.

⁷² See Marge S. Thorsen, Richard A. Kaplan & Scott Hakala, Rediscovering the Economics of Loss Causation, 6 J. Bus. & Sec. L. 93, 109 (2006) ("Forensic experts agree generally on the techniques to be used to show inflation and dissipation in stock prices. The gold standard, which is accepted by both courts and economists, is the event study. Other tools such as valuation analyses often aid the event study.").

⁷³ See supra, ¶¶37-38; see also Mitchell & Netter (1994), supra fn. 18.

For more detailed information regarding the commonly used financial valuation tools, see, e.g., Shannon Pratt & Alina Niculita, Valuing a Business: Part III – Business Valuation Approaches and Methods 171-380 (McGraw-Hill, 5th ed. 2008). See also supra fn. 7.

Similarly, multiple misleading statements and/or omissions may, or may not, also result in multiple inflation ribbons, depending on whether such occurrences introduce additional inflation, or just maintain the level of inflation that already existed in the stock.

- 57. Third, because each class member purchased and/or sold their shares at market prices, each class member's individual damages can be calculated based on the inflation (quantified the same for all class members) at the time of their respective purchases and sales. In other words, the above event-study framework provides a methodology that can be used to quantify class-wide damages in this case.
- 58. Finally, to the extent applicable, under the 90-day lookback period,⁷⁵ damages will be calculated as either: (a) the purchase price per share less the average closing price from the day after the class period through the day of the sale, if the shares were sold during the 90-day period following the end of the class period, or (b) the purchase price less the 90-day average closing price after the class period, if the shares were still retained at the end of the 90-day period.
- 59. While the actual damages analysis may have to be modified as a result of additional information, such as information obtained through discovery or future legal rulings, and may even be modified by a jury to fit its interpretation of the evidence presented at trial, the calculation of each Class member's damages will be a mechanical arithmetic exercise, applying the results of the class-wide analyses described above to each Class member's trading data. Accordingly, it is my expert opinion that the above common methodology can be used to calculate class-wide damages in this matter, as it has been used in hundreds of other similar securities class actions I have been involved in.

⁷⁵ See 15 U.S.C. § 78u-4(e)(1), (2).

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VI. CONCLUSION

60. Based on my review and analysis of the available information, including a careful consideration of the market efficiency factors discussed above, it is my opinion that the market in which Anadarko's common stock traded throughout the Class Period was impersonal, open, well developed, and efficient in that the prices reflected new, material information as it became publicly available. Consequently, it is my opinion that it was reasonable for investors to rely on the integrity of the market price of Anadarko common stock during the Class Period as reflecting publicly available information.

61. Furthermore, based on my experience as a damages expert and consultant in numerous other securities cases similar to this one, it is my opinion that class-wide damages can be calculated in this case using the event-study damages framework explained above.

Executed this 1st day of October, 2021.

Respectfully submitted,

Bjorn I. Steinholt, CFA

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EXHIBIT A

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Employment History

Caliber Advisors, Inc.

Managing Director (2014 to present)

Caliber Advisors is a full-service valuation and economic consulting firm. Mr. Steinholt provides a broad range of capital markets consulting, including financial and economic analyses relating to mergers and acquisitions, initial public offerings, fairness opinions, structured finance, portfolio risk management, market structure, securities analysis and financial valuations, including litigation consulting and expert testimony relating to the economic issues that arise in large complex securities fraud cases.

Financial Markets Analysis, LLC

Principal (2000 to 2014)

Financial Markets Analysis was a financial valuation and economic consulting firm that primarily focused on providing economic analyses and expert testimony relating to securities analysis and financial economics. Mr. Steinholt provided capital markets consulting, financial valuation services, and various litigation consulting and expert testimony in large complex securities fraud cases.

Business Valuation Services, Inc. (subsidiary of CBIZ, Inc.)

<u>Principal</u> (1999 -2000) Vice President (1998-1999)

Business Valuation Services was a national full-service financial valuation firm. Mr. Steinholt provided valuations of businesses and financial securities, including common stock, warrants, options, preferred stock, debt instruments and partnership interests, as well as intangible assets such as patents, trademarks, software, customer lists, work-force and licensing agreements. Mr. Steinholt also provided litigation support in shareholder disputes.

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Princeton Venture Research, Inc.

Senior Vice President (1996-1998) Vice President (1993-1996) Financial Analyst (1990-1993)

Princeton Venture Research was a venture capital, investment banking and economic consulting firm. Mr. Steinholt provided various financial and economic analyses for venture capital, investment banking and consulting assignments, including shareholder disputes. Among other things, he helped identify and evaluate prospective emerging technology companies in need of venture capital funding.

University of San Diego

Research Assistant, Graduate Fellow (1988-1989)

Mr. Steinholt assisted with research regarding the performance of international equity markets following the 1987 stock market crash. He also developed computer programs related to the portfolio theory, including risk minimization and portfolio optimization based on quadratic programming techniques.

Educational Background

- Chartered Financial Analyst CFA Institute, 1997
- Master of International Business University of San Diego, 1989
- Sivilingeniør (Norwegian graduate level engineering designation)
 University of Trondheim, Norway, 1987
- Bachelor of Science in Computer Science,
 Computer Science and Engineering
 California State University, Long Beach, 1987

Professional Affiliations

- Member, CFA Institute
- · Member, Financial Analysts Society of San Diego

Publications

"Price Impact Analysis – Where The Halliburton Court Erred," Expert Analysis Section, Law360 (August 25, 2015).

Testimony

In re: New England Health, et al v. Qwest Comm Intl Inc, et al., Case No. 1:01-cv-01451 (United States District Court for the District of Colorado). QwestDex Hearing Testimony relating to Section 11 damages: January 28, 2003. Mr. Steinholt was retained to opine on potential Section 11 damages.

In re: King, et al v. CBT Group PLC, et al., Case No. 98-cv-21014 (United States District Court, Northern District of California, San Jose Division). Deposition Testimony: November 5, 2003. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

In re: Employer-Teamsters Joint Council Pension Trust Fund v. America West Holding, et al., Case No. 99-cv-399 (United States District Court, District of Arizona). Deposition Testimony: October 28, 2004. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

In re: Howard Yue vs. New Focus, Case No. CV808031 (Superior Court of the State of California, County of Santa Clara). Deposition Testimony: July 28, 2005. Mr. Steinholt was retained to opine on the potential damages and other economic issues relating to the defendants' acquisition of Globe Y.Technology, Inc.

In re: Howard Yue vs. New Focus, Case No. CV808031 (Superior Court of the State of California, County of Santa Clara). Deposition Testimony: August 9, 2005. Mr. Steinholt was retained to opine on the potential damages and other economic issues relating to the defendants' acquisition of Globe Y. Technology, Inc.

In re: AB Liquidating Corp., fka Adaptive Broadband Corporation v. Ernst & Young, LLP (American Arbitration Association). Arbitration, March 23, 2006. Mr. Steinholt was retained to analyze the share turnover in Adaptive Broadband Corporation in connection with the liquidation of the company's assets.

In re: AOL Time Warner, Inc. Securities and "ERISA" Litigation, Consolidated Opt-Out Action, Case No. 1:06-cv-00695 (United States District Court, Southern District of New York). Deposition Testimony: September 28, 2006. Mr. Steinholt was retained to opine on materiality and loss causation in a Section 11 context.

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In re: Ohio Public Employees Retirement System vs. Richard Parsons, et al., Case No. 03-CVH07-7932 (Court of Common Pleas of Franklin County, Ohio). Deposition Testimony: March 22, 2007. Mr. Steinholt was retained to quantify Section 11 damages for various institutional investors.

In re: Ryan v. Flowserve Corporation et al., Case No. 3:03-cv-01769 (United States District Court, Northern District of Texas, Dallas Division). Deposition Testimony: June 15, 2007. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

In re: Nursing Home Pension Fund et al v. Oracle Corporation et al., Case No. 3:01-cv-00988 (United States District Court, Northern District of California). Deposition Testimony: July 2, 2007. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

In re: Carson, et al v. Neopharm Inc, et al., Case No. 1:02-cv-02976 (United States District Court, Northern District of Illinois, Eastern Division). Deposition Testimony: January 22, 2008. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

In re: HealthSouth Corporation Securities Litigation, Case No. 2:03-cv-01501-S (United States District Court, Northern District of Alabama, Southern Division). Deposition Testimony: February 1, 2008. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality and loss causation.

In re: Robert Kelleher, et al. v. ADVO, Inc., et al., Case No. 3:06-cv-01422 (United States District Court, District of Connecticut). Deposition Testimony: September 16, 2008. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality and loss causation in a class certification context.

In re: HealthSouth Corporation Securities Litigation, Case No. 2:03-cv-01501-S (United States District Court, Northern District of Alabama, Southern Division). Deposition Testimony: January 30, 2009. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality and loss causation.

In re: Huffy Corporation Securities Litigation, Case No. 3:05-cv-00028 (United States District Court, Southern District of Ohio, Western Division (at Dayton)). Deposition Testimony: November 12, 2009. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and potential damages for lead plaintiff.

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Lori Weinrib v. The PMI Group, Inc. et al., Case No. 3:08-cv-01405, (United States District Court for the Northern District of California). Deposition Testimony: June 14, 2010. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

Kenneth McGuire, et al. v. Dendreon Corporation, et al., Case No. 2:07-cv-00800 (United States District Court, Western District of Washington at Seattle). Deposition Testimony: June 18, 2010. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

City of Livonia Employees' Retirement System v. The Boeing Company et al., Case No. 1:09-cv-07143, (United States District Court, Northern District of Illinois, Eastern Division). Deposition Testimony: November 5, 2010. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

Maureen Backe, et al. v. Novatel Wireless, Inc., et al., Case No.08-cv-1689 (United States District Court, Southern District of California). Deposition Testimony: February 1, 2011. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

Paul Luman, et al. v. Paul G. Anderson, et al. (FCStone Group Securities Litigation), Case No. 4:08-cv-00514 (United States District Court, Western District of Missouri, Western Division). Deposition Testimony: January 5, 2012. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

T Grocery & Food Employees Welfare Fund v. Regions Financial Corporation et al., Case No. 2:10-cv-02847 (United States District Court, Northern District of Alabama). Deposition Testimony: May 8, 2012. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

City of Pontiac General Employee's Retirement System v. Lockheed Martin Corporation et al., Case No. 1:11-cv-05026, (United States District Court, Southern District of New York). Deposition Testimony: May 18, 2012. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

United Food and Commercial Workers Union et al v. Chesapeake Energy Corporation et al., Case No. 5:09-cv-01114 (United States District Court, Western District of Oklahoma). Deposition Testimony: August 14, 2012. Mr. Steinholt was retained to opine on loss causation in a Section 11 context.

City of Pontiac General Employee's Retirement System v. Lockheed Martin Corporation et al., Case No. 1:11-cv-05026, (United States District Court, Southern District of New York). Deposition Testimony: October 4, 2012. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

Western Pennsylvania Electrical Employees Pension Fund, et al. v. Dennis Alter, et al., (Advanta International Inc. Securities Litigation) Case No. 2:09-cv-04730 (United States District Court, Eastern District of Pennsylvania). Deposition Testimony: May 1, 2013. Mr. Steinholt was retained to opine on economic issues relating to market efficiency in a class certification context.

Southern Avenue Partners LP v. The Perot Family Trust et al., (Parkcentral Global Litigation) Case No. 3:09-cv-00765 (United States District Court, Northern District of Texas, Dallas Division). Deposition Testimony: May 6, 2013. Mr. Steinholt was retained to opine on the calculation of potential damages.

Maureen Backe, et al. v. Novatel Wireless, Inc., et al., Case No. 08-cv-1689 (United States District Court, Southern District of California). Deposition Testimony: June 25, 2013. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

Garden City Employees' Retirement System v. Psychiatric Solutions, Inc. et al., Civil Action No. 3:09-cv-00882 (United States District Court, Middle District of Tennessee, Nashville Division). Deposition Testimony: June 6, 2014. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

City of Pontiac General Employees' Retirement System v. Wal-Mart Stores, Inc. et al., Case No. 12-cv-05162 (United States District Court, Western District of Arkansas (Fayetteville)). Deposition Testimony: November 9, 2015. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Alan B. Marcus, et al. v. J.C. Penney Company, Inc., et al., Case No. 13-cv-00736 (United States District Court, Eastern District of Texas (Tyler Division)). Deposition Testimony: March 4, 2016. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Basis Yield Alpha Fund (Master) v. Goldman Sachs Group, Inc., et al., Index No: 652996/2011 (Supreme Court of the State of New York, County of New York). Deposition Testimony: April 1, 2016. Mr. Steinholt was retained to analyze loss causation related to two CDO-squared securities purchased by Basis Yield Alpha Fund (Master) from Goldman Sachs.

John Sender v. Franklin Resources, Inc., Case No. 11-cv-03828 (United States District Court, Northern District of California). Deposition Testimony: June 17, 2016. Mr. Steinholt was retained to analyze ERISA damages related to plaintiff's participation in defendant's Employee Stock Ownership Plan.

Alan Willis, et al. v. Big Lots, Inc., et al., Case No. 12-cv-00604 (United States District Court, Southern District of Ohio (Columbus)). Deposition Testimony: July 21, 2016. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

In re: Beaver County Employees Retirement Fund vs. Cyan, Inc., et al., Lead Case No. CGC-14-538355 (Superior Court of the State of California, County of San Francisco). Deposition Testimony: October 14, 2016. Mr. Steinholt was retained to opine on potential damages pursuant to §§11 and 12 of the Securities Act of 1933.

In Re Willbros Group, Inc. Securities Litigation, Case No. 14-cv-3084 (United States District Court, Southern District of Texas, Houston Division). Deposition Testimony: April 14, 2017. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Shankar v. Imperva, Inc. et al., Case No. 14-cv-01680 (United States District Court, Northern District of California (Oakland)). Deposition Testimony: May 5, 2017. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Glitz et al. v. Sandridge Energy Inc et al., Case No. 12-cv-01341 (United States District Court, Western District of Oklahoma). Deposition Testimony: May 3, 2018. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Gary Curran, et al. v. Freshpet, Inc., et al.. Case No. 16-cv-02263 (United States District Court, District of New Jersey). Deposition Testimony: July 25, 2018. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Megan Villella, et al. v. Chemical & Mining Co. of Chile, Inc., et al., Case No. 15-cv-02106 (United States District Court, Southern District of New York). Deposition Testimony: November 9, 2018. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Glitz et al. v. Sandridge Energy Inc et al., Case No. 12-cv-01341 (United States District Court, Western District of Oklahoma). Deposition Testimony: June 12, 2019. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

Gary Curran, et al. v. Freshpet, Inc., et al.. Case No. 16-cv-02263 (United States District Court, District of New Jersey). Deposition Testimony: June 27, 2019. Mr. Steinholt was retained to opine on economic issues relating to market efficiency, materiality, loss causation and Section 10(b) and Section 11 damages.

Scheufele et al v. Tableau Software, Inc. et al., Case No. 17-cv-05753 (United States District Court, Southern District of New York). Deposition Testimony: September 24, 2019. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Douglas S. Chabot, et al. v. Walgreens Boots Alliance, Inc., et al., Case No. 18-cv-02118 (United States District Court, Middle District of Pennsylvania). Deposition Testimony: October 11, 2019. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

Jon D. Gruber, et al. v. Dakota Plains Holdings, Inc., et al., Case No. 16-cv-09727 (United States District Court, Southern District of New York). Deposition Testimony: July 2, 2020. Mr. Steinholt was retained to opine on economic issues relating to materiality, loss causation and Section 10(b) damages.

Scheufele et al v. Tableau Software, Inc. et al., Case No. 17-cv-05753 (United States District Court, Southern District of New York). Deposition Testimony: July 28, 2020. Mr. Steinholt was retained to opine on opine economic issues relating to market efficiency, materiality, loss causation and Section 10(b) damages.

Purple Mountain Trust v. Wells Fargo & Company et al., Case No. 18-cv-03948 (United States District Court, Northern District of California). Deposition Testimony: November 13, 2020. Mr. Steinholt was retained to opine on economic issues relating to market efficiency and the calculation of class-wide damages in a class certification context.

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EXHIBIT B

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		Anadarko Daily Trading Volume						
Date	Reported Volume (PX_VOLUME) (1)	Closing Price (PX_LAST)(1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)			
m 744 (47)	(1112) Baddinay (17	(1,1,0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	, ,,,,,,,,	124				
2/20/2015	3,749,883	\$85.45	\$320,427,502	506,650,000	0.0			
2/23/2015	3,861,869	\$85.52	\$330,267,037	506,650,000	0.7			
2/24/2015	3,003,344	\$85.89	\$257,957,216	506,650,000	0.5			
2/25/2015	3,190,496	\$86.41	\$275,690,759	506,650,000	0,6			
2/26/2015	4,002,373	\$85.24	\$341,162,275	506,650,000	0,7			
2/27/2015	6,321,673	\$84.23	\$532,474,517	506,650,000	1.3			
3/2/2015	6,564,662	\$82,02	\$538,433,577	506,650,000	12			
3/3/2015	5,506,768	\$82.78	\$455,850,255	506,650,000	1,0			
3/4/2015	3,426,730	\$83.35	\$285,617,946	506,650,000	0.0			
3/5/2015	3,312,179	\$82.84	\$274,380,908	506,650,000	0.0			
3/6/2015	5,386,879	\$81.73	\$440,269,621	506,650,000	1.			
3/9/2015	3,296,411	\$80.77	\$266,251,116	506,650,000	0.			
3/10/2015	4,617,143	\$78.99	\$364,708,126	506,650,000	0.			
3/11/2015	3,134,550	\$79.49	\$249,165,380	506,650,000	0,			
	2,972,525	\$78.19		506,650,000	0,			
3/12/2015			\$232,421,730					
3/13/2015	3,577,865	\$78.42	\$280,576,173	506,650,000	0,			
3/16/2015	4,590,672	\$80,64	\$370,191,790	506,650,000	0,			
3/17/2015	6,100,955	\$80,44	\$490,760,820	506,650,000	L			
3/18/2015	5,485,446	\$82.59	\$453,042,985	506,650,000	1,			
3/19/2015	4,001,142	\$80,43	\$321,811,851	506,650,000	0.			
3/20/2015	5,062,910	\$81,95	\$414,905,475	506,650,000	1,			
3/23/2015	3,865,744	\$81,04	\$313,279,894	515,477,000	0,			
3/24/2015	3,503,918	\$81,41	\$285,253,964	515,477,000	0.			
3/25/2015	4,056,799	\$82,34	\$334,036,830	515,477,000	0.			
3/26/2015	4,060,903	\$83.20	\$337,867,130	515,477,000	0.			
3/27/2015	2,432,362	\$82,19	\$199,915,833	515,477,000	0.			
3/30/2015	2,828,757	\$83,85	\$237,191,274	515,477,000	0,			
3/31/2015	2,397,928	\$82.81	\$198,572,418	515,477,000	0.			
4/1/2015	4,170,372	\$83.86	\$349,727,396	515,477,000	0.			
4/2/2015	3,567,863	\$84.55	\$301,662,817	515,477,000	0.			
4/6/2015	3,250,781	\$85.86	\$279,112,057	515,477,000	0.			
4/7/2015	3,518,976	\$85.44	\$300,661,309	515,477,000	0.			
4/8/2015	5,908,806	\$86.12	\$508,866,373	515,477,000	1			
4/9/2015		\$88.90		515,477,000	1.			
	5,976,704		\$531,328,986	March 2012 (1977)				
4/10/2015	4,061,904	\$90.10	\$365,977,550	515,477,000	0.			
4/13/2015	4,299,731	\$88.68	\$381,300,145	515,477,000	0,			
4/14/2015	4,113,429	\$90.83	\$373,622,756	515,477,000	0.			
4/15/2015	7,222,503	\$94.54	\$682,815,434	515,477,000	J.			
4/16/2015	5,076,531	\$93,94	\$476,889,322	515,477,000	0,			
4/17/2015	6,560,651	\$93,68	\$614,601,786	515,477,000	13			
4/20/2015	7,866,624	\$93.66	\$736,788,004	515,477,000	1.			
4/21/2015	3,091,857	\$92.56	\$286,182,284	515,477,000	0.			
4/22/2015	2,651,577	\$93.04	\$246,702,724	515,477,000	0.			
4/23/2015	2,639,294	\$93.46	\$246,668,417	515,477,000	0.			
4/24/2015	3,426,548	\$92.65	\$317,469,672	515,477,000	0.			
4/27/2015	2,424,079	\$93.16	\$225,827,200	515,477,000	.0.			
4/28/2015	2,251,433	\$93.66	\$210,869,215	515,477,000	.0.			
4/29/2015	3,339,185	\$93.90	\$313,549,472	515,477,000	.0.			
4/30/2015	5,498,374	\$94.10	\$517,396,993	515,477,000	17			
5/1/2015	2,211,910	\$93.92	\$207,742,587	515,477,000	0.			
5/4/2015	5,065,535	\$93.73	\$474,792,596	507,936,000	1			
5/5/2015	9,411,401	\$89.32	\$840,626,337	507,936,000	1.			
					0.			
5/6/2015	4,731,354	\$89.66	\$424,213,200	507,936,000				
5/7/2015	5,234,333	\$88.77	\$464,651,740	507,936,000	1.			
5/8/2015	5,394,347	\$88,56	\$477,723,370	507,936,000	1.			
5/11/2015	4,053,931	\$86,32	\$349,935,324	507,936,000	0.			
5/12/2015	4,337,104	\$86.19	\$373,814,994	507,936,000	0.8			

		Anadarko Daily Tr	ading Volume		
Date	Reported Volume (PX_VOLUME) (1)	Closing Price (PX_LAST) (1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)
5/13/2015	4,198,950	\$85.11	\$357,372,635	507,936,000	0.
5/14/2015	3,154,919	\$84.49	\$266,559,106	507,936,000	0.
5/15/2015	4,536,728	\$84.67	\$384,124,760	507,936,000	0.
5/18/2015	3,169,627	\$84.98	\$269,354,902	507,936,000	0.
5/19/2015	4,105,895	\$83.56	\$343,088,586	507,936,000	0.
5/20/2015	2,629,964	\$83.40	\$219,338,998	507,936,000	0.
5/21/2015	3,907,136	\$85.60	\$334,450,842	507,936,000	0.
5/22/2015	4,026,816	\$86.17	\$346,990,735	507,936,000	0.
5/26/2015	3,598,686	\$84.18	\$302,937,387	507,936,000	0.
5/27/2015	3,492,098	\$84.15	\$293,860,047	507,936,000	0.
5/28/2015	3,087,900	\$83.92	\$259,136,568	507,936,000	0.
5/29/2015	4,045,241	\$83.61	\$338,222,600	507,936,000	0.
6/1/2015	2,830,521	\$83.84	\$237,310,881	507,936,000	0.
6/2/2015	2,995,050	\$84.79	\$253,950,290	507,936,000	0.
6/3/2015	4,360,170	\$83.92	\$365,905,466	507,936,000	0.
6/4/2015	2,284,962	\$83.40	\$190,565,831	507,936,000	0
6/5/2015	3,000,129	\$84.49	\$253,480,899	507,936,000	0.
6/8/2015	3,846,817	\$82.96	\$319,131,938	507,936,000	0.
6/9/2015	4,515,623	\$83,22	\$375,790,146	507,936,000	0.
6/10/2015	2,120,108	\$84.61	\$179,382,338	507,936,000	0.
6/11/2015	1,845,108	\$83.93	\$154,859,914	507,936,000	0.
6/12/2015	3,578,569	\$83.12	\$297,450,655	507,936,000	0.
6/15/2015	1,892,500	\$82.67	\$156,452,975	507,936,000	0.
6/16/2015	1,515,221	\$83.61	\$126,687,628	507,936,000	0.
6/17/2015	2,008,813	\$83.03	\$166,791,743	507,936,000	0.
6/18/2015	2,408,410	\$82,89	\$199,633,105	507,936,000	0.
6/19/2015	4,028,878	\$81.82	\$329,642,798	507,936,000	0.
6/22/2015	2,007,299	\$81.97	\$164,538,299	507,936,000	0.
6/23/2015	1,941,031	\$82,22	\$159,591,569	507,936,000	0.
6/24/2015	3,847,381	\$81.45	\$313,369,182	507,936,000	0,
6/25/2015	3,039,708	\$80.73	\$245,395,627	507,936,000	0
6/26/2015	3,973,846	\$81.36	\$323,312,111	507,936,000	0.
6/29/2015	3,931,862	\$78.59	\$309,005,035	507,936,000	0.
6/30/2015	4,270,814	\$78.06	\$333,379,741	507,936,000	0.
7/1/2015	5,155,217	\$77.18	\$397,879,648	507,936,000	1.
7/2/2015	3,474,390	\$76.78	\$266,763,664	507,936,000	0.
7/6/2015	3,967,671	\$76.38	\$303,050,711	507,936,000	0.
7/7/2015	5,979,068	\$77.92	\$465,888,979	507,936,000	I.
7/8/2015	3,653,087	\$75.47	\$275,698,476	507,936,000	0,
7/9/2015	3,703,230	\$76.08	\$281,741,738	507,936,000	0.
7/10/2015	3,381,679	\$75.71	\$256,026,917	507,936,000	0,
7/13/2015	3,480,853	\$75.70	\$263,500,572	507,936,000	0.
7/14/2015	5,639,051	\$76.37	\$430,654,325	507,936,000	î.
7/15/2015	4,723,560	\$75,20	Land of the second of the seco		0.
7/16/2015	4,296,594	\$74.69	\$355,211,712	507,936,000	0.
			\$320,912,606	507,936,000	
7/17/2015	4,012,775	\$73.88	\$296,463,817	507,936,000	0.
	4,795,648	\$72,62	\$348,259,958	507,936,000	0,
7/21/2015	4,907,584	\$73.37 \$73.66	\$360,069,438	507,936,000	0.1
	5,266,989	\$72.66	\$382,699,421	507,936,000	1.0
7/23/2015	3,054,196	\$72,54	\$221,551,378	507,936,000	0.0
7/24/2015	3,418,825	\$71,61	\$244,822,058	507,936,000	0.
7/27/2015	4,734,234	\$69.99	\$331,349,038	507,936,000	0.
7/28/2015	6,230,040	\$72.85	\$453,858,414	508,012,000	1.2
7/29/2015	7,818,149	\$76.28	\$596,368,406	508,012,000	1.
7/30/2015	3,999,753	\$76.63	\$306,501,072	508,012,000	0.
7/31/2015	4,025,825	\$74.35	\$299,320,089	508,012,000	0.

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Anadarko Securities Litigation

		Anadarko Daily Tr	ading Volume		
Date	Reported Volume (PX_VOLUME)(1)	Closing Price (PX_LAST) (1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)
8/4/2015	4,208,724	\$74.30	\$312,708,193	508,012,000	0.83
8/5/2015	3,898,475	\$74.01	\$288,526,135	508,012,000	0.77
8/6/2015	5,069,360	\$76,15	\$386,031,764	508,012,000	1,00
8/7/2015	4,695,127	\$73.05	\$342,979,027	508,012,000	0.92
8/10/2015	3,446,750	\$75.70	\$260,918,975	508,012,000	0.68
8/11/2015	3,653,885	\$75.47	\$275,758,701	508,012,000	0.72
8/12/2015	6,202,713	\$78.10	\$484,431,885	508,012,000	1.22
8/13/2015	4,298,692	\$76.24	\$327,732,278	508,012,000	0.85
8/14/2015	4,219,125	\$76.25	\$321,708,281	508,012,000	0.83
8/17/2015	2,399,754	\$76.54	\$183,677,171	508,012,000	0.47
8/18/2015	2,545,928	\$76.64	\$195,119,922	508,012,000	0.50
8/19/2015	7,351,775	\$72.38	\$532,121,475	508,012,000	1.45
8/20/2015	6,733,187	\$71.05	\$478,392,936	508,012,000	1.33
8/21/2015	6,927,000	\$68.78	\$476,439,060	508,012,000	1.36
8/24/2015	11,059,381	\$65,55	\$724,942,425	508,012,000	2.18
8/25/2015	5,022,645	\$63.99	\$321,399,054	508,012,000	0.99
8/26/2015	6,274,936	\$65.16	\$408,874,830	508,012,000	1.24
8/27/2015	9,017,982	\$69.01	\$622,330,938	508,012,000	1.78
8/28/2015	6,647,098	\$70,94	\$471,545,132	508,012,000	1,31
8/31/2015	7,077,086	\$71.58	\$506,577,816	508,012,000	1.39
9/1/2015	5,283,636	\$68.29	\$360,819,502	508,012,000	1.04
9/2/2015	4,221,792	\$69.53	\$293,541,198	508,012,000	0.83
9/3/2015	4,016,702	\$69.51	\$279,200,956	508,012,000	0.79
9/4/2015	3,385,990	\$68.34	\$231,398,557	508,012,000	0.67
9/8/2015	3,565,578	\$69,70	\$248,520,787	508,012,000	0,70
9/9/2015	4,004,504	\$67.20	\$269,102,669	508,012,000	0.79
9/10/2015	4,137,509	\$67,21	\$278,081,980	508,012,000	0.81
9/11/2015	4,574,475	\$65,65	\$300,314,284	508,012,000	0,90
9/14/2015	3,587,806	\$65,00	\$233,207,390	508,012,000	0.71
9/15/2015	2,571,376	\$65.72	\$168,990,831	508,012,000	0,51
9/16/2015	4,678,656	\$69.14	\$323,482,276	508,012,000	0.92
9/17/2015	6,232,864	\$68,57	\$427,387,484	508,012,000	1,23
9/18/2015	6,832,618	\$65,47	\$447,331,500	508,012,000	1.34
9/21/2015	2,564,573	\$65.86	\$168,902,778	508,012,000	0.50
9/22/2015	2,781,073	\$64.81	\$180,241,341	508,012,000	0.55
9/23/2015	4,733,317	\$63.18	\$299,050,968	508,012,000	0.93
9/24/2015	3,459,562	\$63.70	\$220,374,099	508,012,000	0.68
9/25/2015	4,251,918	\$62,67	\$266,467,701	508,012,000	0.84
9/28/2015	6,347,243	\$59.43	\$377,216,651	508,012,000	1.25
9/29/2015	4,435,947	\$59.04	\$261,898,311	508,012,000	0.87
9/30/2015	3,989,049	\$60,39	\$240,898,669	508,012,000	0.79
10/1/2015	4,083,759	\$60.95	\$248,905,111	508,012,000	0.80
10/2/2015	5,264,105	\$64.11	\$337,481,772	508,012,000	1.04
10/5/2015	5,365,071	\$66.49	\$356,723,571	508,012,000	1.06
10/6/2015	4,978,473	\$68.65	\$341,772,171	508,012,000	0,98
10/7/2015	5,304,896	\$69.14	\$366,780,509	508,012,000	1,04
10/8/2015	7,104,999	\$72.33	\$513,904,578	508,012,000	1,40
10/9/2015	5,409,998	\$72.40	\$391,683,855	508,012,000	1.06
10/12/2015	4,138,040	\$71.09	\$294,173,264	508,012,000	0.81
10/13/2015	2,961,209	\$70,58	\$209,002,131	508,012,000	0.58
10/14/2015	4,428,094	\$71.57	\$316,918,688	508,012,000	0.87
10/15/2015	4,103,884	\$72.96	\$299,419,377	508,012,000	0.81
10/16/2015	4,414,027	\$73.39	\$323,945,442	508,012,000	0.87
10/19/2015	4,051,128	\$72.31	\$292,937,066	508,012,000	0.80
10/20/2015	2,910,530	\$73.29	\$213,312,744	508,012,000	0.57
10/21/2015	2,753,957	\$71.55	\$197,045,623	508,012,000	0.54
10/22/2015	3,318,670	\$73.00	\$242,262,910	508,012,000	0.659

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	Anadarko Daily Trading Volume								
Date	Reported Volume (PX_VOLUME) (1)	Closing Price (PX_LAST)(1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)				
10/23/2015	4,558,041	\$72.03	\$328,315,693	508,012,000	0.90				
10/26/2015	4,820,992	\$69.00	\$332,648,448	508,012,000	0.95				
10/27/2015	8,163,419	\$65.29	\$532,989,627	508,143,000	1.61				
10/28/2015	7,213,311	\$65.55	\$472,832,536	508,143,000	1.42				
10/29/2015	6,891,954	\$67.58	\$465,758,251	508,143,000	1.36				
10/30/2015	5,663,857	\$66.88	\$378,798,756	508,143,000	1.11				
11/2/2015	4,522,142	\$67.38	\$304,701,928	508,143,000	0.89				
11/3/2015	6,343,931	\$70.84	\$449,404,072	508,143,000	1.25				
11/4/2015	4,940,115	\$70.22	\$346,894,875	508,143,000	0.97				
11/5/2015	3,208,362	\$70.10	\$224,906,176	508,143,000	0.63				
11/6/2015	3,723,498	\$68.60	\$255,431,963	508,143,000	0.73				
11/9/2015	3,369,583	\$67.90	\$228,794,686	508,143,000	0.66				
11/10/2015	17,835,781	\$63.42	\$1,131,145,231	508,143,000	3.51				
11/11/2015	13,250,350	\$61.01	\$808,403,854	508,143,000	2,61				
11/12/2015	9,299,955	\$58.50	\$544,047,368	508,143,000	1.83				
11/13/2015	9,381,682	\$60.05	\$563,370,004	508,143,000	1,85				
11/16/2015	7,089,698	\$62.11	\$440,341,143	508,143,000	1.40				
11/1.7/2015	7,130,047	\$61.12	\$435,788,473	508,143,000	1.40				
11/18/2015	4,020,746	\$61.74	\$248,240,858	508,143,000	0.79				
11/19/2015	5,114,302	\$59,64	\$305,016,971	508,143,000	1:01				
11/20/2015	4,338,024	\$58.74	\$254,815,530	508,143,000	0.85				
11/23/2015	6,585,389	\$60.35	\$397,428,226	508,143,000	1.30				
11/24/2015	5,438,328	\$62,02	\$337,285,103	508,143,000	1.07				
11/25/2015	2,784,863	\$61,13	\$170,238,675	508,143,000	0.55				
11/27/2015	2,304,930	\$60.71	\$139,932,300	508,143,000	0.45				
11/30/2015	5,533,085	\$59.90	\$331,431,792	508,143,000	1.09				
12/1/2015	5,338,914	\$60.50	\$323,004,297	508,143,000	1.05				
12/2/2015	6,525,633	\$58.77	\$383,511,451	508,143,000	1.28				
12/3/2015	6,107,945	\$58,14	\$355,115,922	508,143,000	1.20				
12/4/2015	8,315,611	\$56.81	\$472,409,861	508,143,000	1.64				
12/7/2015	11,092,713	\$53.68	\$595,456,834	508,143,000	2.18				
12/8/2015	9,576,471	\$51,82	\$496,252,727	508,143,000	1.88				
12/9/2015	8,609,648	\$50.83	\$437,628,408	508,143,000	1.69				
12/10/2015	8,363,900	\$51.23	\$428,482,597	508,143,000	1.65				
12/11/2015	9,869,764	\$49.55	\$489,046,806	508,143,000	1.94				
12/14/2015	11,824,846	\$47.59	\$562,744,421	508,143,000	2,33				
12/15/2015	7,060,402	\$48.80	\$344,547,618	508,143,000	1.39				
12/16/2015	7,657,622	\$47.67	\$365,038,841	508,143,000	1.51				
12/17/2015	13,563,465	\$46.73	\$633,820,719	508,143,000	2.67				
12/18/2015	8,659,164	\$45,67	\$395,464,020	508,143,000	1.70				
12/21/2015	13,333,245	\$46.55	\$620,662,555	508,143,000	2.62				
12/22/2015	11,511,431	\$48.55	\$558,879,975	508,143,000	2,27				
12/23/2015	8,278,780	\$51.50	\$426,357,170	508,143,000	1.63				
12/24/2015	2,691,620	\$51.22	\$137,864,776	508,143,000	0.53				
12/28/2015	4,945,236	\$49.69	\$245,728,777	508,143,000	0.97				
12/29/2015	3,188,020	\$49.73	\$158,540,235	508,143,000	0.63				
12/30/2015	3,534,793	\$48.38	\$171,013,285	508,143,000	0.70				
12/31/2015	3,672,312	\$48,58	\$178,400,917	508,143,000	0,72				
1/4/2016	5,909,308	\$49.13	\$290,324,302	508,143,000	1,16				
1/5/2016	4,130,002	\$48.52	\$200,387,697	508,143,000	0.81				
1/6/2016	10,750,092	\$43.77	\$470,531,527	508,143,000	2.12				
1/7/2016	13,733,204	\$40.11	\$550,838,812	508,143,000	2.70				
1/8/2016	11,345,620	\$40.56	\$460,178,347	508,143,000	2.23				
1/11/2016	10,090,936	\$37.75	\$380,932,834	508,143,000	1.99				
1/12/2016	25,166,307	\$37.33	\$939,458,240	508,143,000	4.95				
1/13/2016	15,524,658	\$34.86	\$541,189,578	508,143,000	3.06				
1/14/2016	15,146,697	\$35,00	\$530,134,395	508,143,000	2.989				

	Reported Volume	Closing Price	Dollar	Shares Outstanding	Daily Share	
Date	(PX_VOLUME) (1)	(PX_LAST)(1)	Volume (2)	(EQY_SH_OUT) (1)	Turnover (3)	
1/15/2016	15,072,222	\$32.02	\$482,612,548	508,143,000	2.97	
1/19/2016	13,316,079	\$30.85	\$410,801,037	508,143,000	2.629	
1/20/2016	16,346,359	\$30.54	\$499,217,804	508,143,000	3.229	
1/21/2016	11,363,212	\$33.55	\$381,235,763	508,143,000	2.249	
1/22/2016	13,440,831	\$35.48	\$476,880,684	508,143,000	2.659	
1/25/2016	9.761.636	\$32.31	\$315,398,459	508,143,000	1.929	
1/26/2016	10,236,943	\$34.59	\$354,095,858	508,143,000	2.019	
1/27/2016	10,505,460	\$35.53	\$373,258,994	508,143,000	2.079	
1/28/2016	12,159,688	\$37.25	\$452,948,378	508,143,000	2,399	
1/29/2016	9,588,350	\$39.09	\$374,808,602	508,143,000	1.899	
2/1/2016	9,735,242	\$38.25	\$372,373,007	508,143,000	1.929	
2/2/2016	16,811,930	\$39.26	\$660,036,372	508,143,000	3.319	
2/3/2016	14,322,918	\$42.49	\$608,580,786	508,143,000	2.829	
2/4/2016	13,684,732	\$41.36	\$566,000,516	508,143,000	2.699	
2/5/2016	8,552,952	\$40.77	\$348,703,853	508,143,000	1.689	
2/8/2016	8,300,482	\$40.05	\$332,434,304	508,143,000	1.639	
2/9/2016	12,085,704	\$37.24	\$450,071,617	508,143,000	2.389	
2/10/2016	10,903,111	\$37.39	\$407,667,320	508,143,000	2.15	
2/11/2016	16,470,278	\$35.68	\$587,659,519	508,143,000	3.24	
2/12/2016	7,516,975	\$37.81	\$284,216,825	508,143,000	1.48	
2/16/2016	6,102,323	\$39.09	\$238,539,806	508,143,000	1.20	
2/17/2016	10,239,547	\$40.50	\$414,701,654	508,439,000	2.01	
2/18/2016	11,707,987	\$37.03	\$433,546,759	508,439,000	2.30	
2/19/2016	12,914,962	\$35.35	\$456,543,907	508,439,000	2.54	
2/22/2016	7,094,628	\$37.35	\$264,984,356	508,439,000	1.40	
2/23/2016	6,104,428	\$35.30	\$215,486,308	508,439,000	1,209	
2/24/2016	8,671,634	\$36,21	\$313,999,867	508,439,000	1.719	
2/25/2016	8,422,895	\$37.64	\$317,037,768	508,439,000	1.669	
2/26/2016	7,059,736	\$38.02	\$268,411,163	508,439,000	1.399	
2/29/2016	7,924,190	\$37.95	\$300,723,011	508,439,000	1.56	
3/1/2016	10,922,066	\$40.11	\$438,084,067	508,439,000	2.15	
3/2/2016	9,839,747	\$42.65	\$419,665,210	508,439,000	1.94	
3/3/2016	9,478,145	\$42.98	\$407,370,672	508,439,000	1.869	
3/4/2016	13,165,306	\$45,26	\$595,861,750	508,439,000	2.59	
3/7/2016	9,934,588	\$45.10	\$448,049,919	508,439,000	1.95	
3/8/2016	7,708,058	\$41,14	\$317,109,506	508,439,000	1,529	
3/9/2016	7,703,333	\$42.32	\$326,005,053	508,439,000	1.529	
3/10/2016	7,037,015	\$42.50	\$299,073,138	508,439,000	1.389	
3/11/2016	14,798,338	\$46.29	\$685,015,066	508,439,000	2.91	
3/14/2016	6,291,621 \$46.31 \$291,364,969	508,439,000	1.24			
3/15/2016	5,491,523	\$47.02	\$258,211,411	508,439,000	1.089	
3/16/2016	9,017,663	\$48.71	\$439,250,365	508,439,000	1.779	
3/17/2016	6,830,758	\$49.26	\$336,483,139	508,439,000	1.345	
3/18/2016	10,288,354	\$48.76	\$501,660,141	515,985,000	1.99	
3/21/2016	5,803,845	\$48.61	\$282,124,905	515,985,000	1.125	
3/22/2016	4,666,366	\$48.01	\$224,032,232	515,985,000	0.90	
3/23/2016	6,318,950	\$46.29	\$292,504,196	515,985,000	1,22	
3/24/2016	9,106,981	\$46,27	\$421,380,011	515,985,000	1.76	
3/28/2016	6,189,351	\$45.63	\$282,420,086	515,985,000	1.20	
3/29/2016	5,442,996	\$46.23	\$251,629,705	515,985,000	1.05	
3/30/2016	5,345,369	\$46.39	\$247,971,668	515,985,000	1.04	
3/31/2016	5,755,311	\$46,57	\$268,024,833	515,985,000	1.12	
4/1/2016	3,379,912	\$45,81	\$154,833,769	515,985,000	0.66	
4/4/2016	4,417,957	\$44.59	\$196,996,703	515,985,000	0.86	
4/5/2016	4,394,366	\$44.10	\$193,791,541	515,985,000	0.85	
4/6/2016	9,776,929	\$45.71	\$446,903,425	515,985,000	1.899	
4/7/2016	4,398,898	\$45.75	\$201,249,584	515,985,000	0.859	

		Anadarko Daily Tr	ading Volume		
Date	Reported Volume (PX_VOLUME)(1)	Closing Price (PX_LAST)(1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)
4/8/2016	5,945,871	\$48.29	\$287,126,111	515,985,000	1,3
4/11/2016	4,063,930	\$47.53	\$193,158,593	515,985,000	0.3
4/12/2016	5,954,414	\$50.11	\$298,375,686	515,985,000	1,1
4/13/2016	4,407,755	\$49.32	\$217,390,477	515,985,000	0.8
4/14/2016	4,599,698	\$49.46	\$227,501,063	515,985,000	0.8
4/15/2016	4,429,114	\$48.91	\$216,627,966	515,985,000	0.8
4/18/2016	4,671,202	\$50.13	\$234,167,356	515,985,000	0.9
4/19/2016	6,730,831	\$50.53	\$340,108,890	515,985,000	1.3
4/20/2016	6,909,763	\$50.66	\$350,048,594	515,985,000	1.3
4/21/2016	7,799,487	\$50.03	\$390,208,335	515,985,000	1.
4/22/2016	6,365,023	\$52.55	\$334,481,959	515,985,000	1.5
4/25/2016	5,187,068	\$51.09	\$265,007,304	515,985,000	1.0
4/26/2016	5,383,425	\$52.36	\$281,876,133	515,985,000	1.0
4/27/2016	7,606,778	\$54.78	\$416,699,299	515,985,000	1.4
4/28/2016	4,145,440	\$53.20	\$220,537,408	515,985,000	0.3
4/29/2016	5,051,354	\$52.76	\$266,509,437	515,985,000	0.9
5/2/2016	5,067,521	\$51.95	\$263,257,716	510,427,000	0
5/3/2016	9,411,226	\$50.10	\$471,502,423	510,427,000	1.
5/4/2016	9,231,029	\$47.02	\$434,042,984	510,427,000	ĺ.
5/5/2016	9,415,787	\$46.10	\$434,067,781	510,427,000	1.3
5/6/2016	5,660,297	\$46.56	\$263,543,428	510,427,000	1.
5/9/2016	4,152,244	\$44.99	\$186,809,458	510,427,000	0,
5/10/2016	4,047,359	\$47.01	\$190,266,347	510,427,000	0.
5/11/2016	4,912,373	\$47.92	\$235,400,914	510,427,000	0.
5/12/2016	6,733,603	\$48.25	\$324,896,345	510,427,000	1.
5/13/2016	6,062,778	\$47.72	\$289,315,766	510,427,000	1.
5/16/2016	7,049,727	\$49.17	\$346,635,077	510,427,000	1:
5/17/2016	4,180,841	\$49.74	\$207,955,031	510,427,000	0.
5/18/2016	3,620,698	\$48.94	\$177,196,960	510,427,000	0.
5/19/2016	3,792,017	\$49,22	\$186,643,077	510,427,000	O.
5/20/2016	3,119,409	\$49,30	\$153,786,864	510,427,000	0.0
5/23/2016	4,022,284	\$49.20	\$197,896,373	510,427,000	0.3
5/24/2016	3,544,080	\$50.24	\$178,054,579	510,427,000	0.
5/25/2016	6,274,351	\$52.09	\$326,830,944	510,427,000	12
5/26/2016	4,725,954	\$52.28	\$247,072,875	510,427,000	0.
5/27/2016	3,883,872	\$51.53	\$200,135,924	510,427,000	0.0
5/31/2016	4,306,422	\$51.86	\$223,331,045	510,427,000	0.
6/1/2016	4,014,955	\$52.40	\$210,383,642	510,427,000	0,
6/2/2016	3,713,739	\$51.69	\$191,963,169	510,427,000	0.3
6/3/2016	3,144,888	\$51.44	\$161,773,039	510,427,000	0.0
6/6/2016	3,572,628	\$53.28	\$190,349,620	510,427,000	0.
6/7/2016	6,953,994	\$55 22	\$383,999,549	510,427,000	1.1
6/8/2016	4,169,057	\$55,18	\$230,048,565	510,427,000	0.
6/9/2016	2,959,924	\$54.48	\$161,256,660	510,427,000	0.3
6/10/2016	5,043,275	\$53.00	\$267,293,575	510,427,000	0.9
6/13/2016	3,904,249	\$53.08	\$207,237,537	510,427,000	0.
6/14/2016	3,187,397	\$53.70	\$171,163,219	510,427,000	0.0
6/15/2016	2,955,006	\$53.38	\$157,738,220	510,427,000	0.3
6/16/2016	4,468,980	\$53.30	\$238,196,634	510,427,000	0.3
6/17/2016	4,845,146	\$54.86	\$265,804,710	510,427,000	0.9
6/20/2016	4,383,867	\$54.85	\$240,455,105	510,427,000	0.8
6/21/2016	2,216,471	\$55,51	\$123,036,305	510,427,000	0.4
6/22/2016	2,390,798	\$54.39	\$130,035,503	510,427,000	0.4
6/23/2016	3,792,940	\$55.52	\$210,584,029	510,427,000	0.5
6/24/2016	8,010,912	\$52.83	\$423,216,481	510,427,000	1.5
6/27/2016	8,149,924	\$49.50	\$403,421,238	510,427,000	1.6
6/28/2016	5,095,129	\$51.13	\$260,513,946	510,427,000	1.0

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	Anadarko Daily Trading Volume							
	Reported Volume	Closing Price	Dollar	Shares Outstanding	Daily Share			
Date	(PX_VOLUME)(I)	(PX_LAST)(1)	Volume (2)	(EQY_SH_OUT)(1)	Turnover (3)			
6/29/2016	5,373,529	\$53.19	\$285,818,008	510,427,000	10			
6/30/2016	4,838,163	\$53.25	\$257,632,180	510,427,000	0.			
7/1/2016	4,387,319	\$54.89	\$240,819,940	510,427,000	0.			
7/5/2016	3,952,378	\$53.61	\$211,886,985	510,427,000	0.			
7/6/2016	4,432,612	\$55.19			0.			
7/7/2016			\$244,635,856	510,427,000	0.			
	4,874,013	\$55.22	\$269,142,998	510,427,000				
7/8/2016	4,035,312	\$55.91	\$225,614,294	510,427,000	0.			
7/11/2016	2,990,400	\$55.86	\$167,043,744	510,427,000	0.			
7/12/2016	4,353,944	\$57.42	\$250,003,464	510,427,000	0.			
7/13/2016	4,856,777	\$56.10	\$272,465,190	510,427,000	0.			
7/14/2016	3,397,409	\$55,52	\$188,624,148	510,427,000	0.			
7/15/2016	4,280,089	\$55.01	\$235,447,696	510,427,000	0.			
7/18/2016	4,760,512	\$55.10	\$262,304,211	510,427,000	0.			
7/19/2016	4,321,915	\$53.85	\$232,735,123	510,427,000	0			
7/20/2016	4,051,080	\$54.52	\$220,864,882	510,427,000	0,			
7/21/2016	3,979,044	\$54.17	\$215,544,813	510,427,000	0,			
7/22/2016	3,342,718	\$54.64	\$182,646,112	510,427,000	0.			
7/25/2016	4,483,269	\$53.87	\$241,513,701	510,427,000	0.			
7/26/2016	3,418,177	\$54.74	\$187,111,009	510,457,000	0.			
7/27/2016	5,664,609	\$53.80	\$304,755,964	510,457,000	T			
7/28/2016	6,067,778	\$53.36	\$323,776,634	510,457,000	1.			
7/29/2016	5,355,308	\$54.53	\$292,024,945	510,457,000	1.			
8/1/2016	6,163,435	\$51.85	\$319,574,105	510,457,000	1.			
8/2/2016	4,756,650	\$51.63	\$245,585,840	510,457,000	0.			
8/3/2016	3,969,311	\$52.68	\$209,103,303	510,457,000	0.			
8/4/2016	5,453,744	\$51.27	\$279,613,455	510,457,000	1			
8/5/2016	6,992,495	\$52.77	\$368,993,961	510,457,000	1.			
8/8/2016	4,532,868	\$53.05	\$240,468,647	510,457,000	0.			
8/9/2016	5,028,816	\$52.75	\$265,270,044		0.			
8/10/2016	3,563,552	\$52,63		510,457,000	0.			
			\$187,549,742	510,457,000				
8/11/2016	3,675,303	\$54.01	\$198,503,115	510,457,000	0.			
8/12/2016	3,710,155	\$54,28	\$201,387,213	510,457,000	0.			
8/15/2016	2,877,512	\$54,60	\$157,112,155	510,457,000	.0.			
8/16/2016	3,929,361	\$54.15	\$212,774,898	510,457,000	0.			
8/17/2016	2,522,516	\$54.38	\$137,174,420	510,457,000	0.			
8/18/2016	4,891,284	\$55.94	\$273,618,427	510,457,000	0.			
8/19/2016	3,165,448	\$54,83	\$173,561,514	510,457,000	0.			
8/22/2016	3,158,955	\$54.27	\$171,436,488	510,457,000	.0.			
8/23/2016	3,421,917	\$56.05	\$191,798,448	510,457,000	0.			
8/24/2016	4,292,371	\$54.16	\$232,474,813	510,457,000	0.			
8/25/2016	2,759,991	\$55.15	\$152,213,504	510,457,000	0.			
8/26/2016	2,594,481	\$55,26	\$143,371,020	510,457,000	0.			
8/29/2016	2,521,409	\$56.22	\$141,753,614	510,457,000	0.			
8/30/2016	3,252,923	\$55.78	\$181,448,045	510,457,000	0.			
8/31/2016	5,256,689	\$53.47	\$281,075,161	510,457,000	1.			
9/1/2016	5,195,640	\$53,54	\$278,174,566	510,457,000	1,			
9/2/2016	6,095,531	\$56.49	\$344,336,546	510,457,000	1,			
9/6/2016	3,586,960	\$57.19	\$205,138,242	510,457,000	0.			
9/7/2016	4,185,021	\$57.18	\$239,299,501	510,457,000	0.			
9/8/2016	4,277,848	\$59.06	\$252,649,703	510,457,000	0.			
9/9/2016	4,632,587	\$57.77	\$267,624,551	510,457,000	0.			
9/12/2016	3,139,417	\$57.79	\$181,426,908	553,617,000	0.			
9/13/2016	33,186,622	\$57.59	\$1,911,217,561	553,617,000	5,			
9/14/2016	14,741,610	\$55,62 \$56.03	\$819,928,348	553,617,000	2.			
9/15/2016	6,970,935	\$56.93	\$396,855,330	553,617,000	1.			
9/16/2016	5,478,011 4,816,145	\$57.52 \$57.52	\$315,095,193 \$277,024,660	553,617,000 553,617,000	0.9			

Anadarko Daily Trading Volume Daily Share Reported Volume Closing Price Dollar Shares Outstanding (PX VOLUME) (1) Volume (2) (EQY_SH_OUT)(I) Turnover (3) Date (PX_LAST)(1) \$372,037,315 9/20/2016 6,383,619 \$58.28 553,617,000 1.15% 9/21/2016 8,091,508 \$61.06 \$494,067,478 553,617,000 1.46% 1.61% 9/22/2016 8,906,607 \$61,21 \$545,173,414 553,617,000 2.07% 9/23/2016 11,432,700 \$59.50 \$680,245,650 553,617,000 1.07% 9/26/2016 5,942,349 \$58.54 553,617,000 \$347,865,110 9/27/2016 6,082,682 \$58.27 \$354,437,880 553,617,000 1.10% 553,617,000 1.34% 9/28/2016 7,397,551 \$61.27 \$453,247,950 9/29/2016 9,805,566 \$62.58 \$613,632,320 553,617,000 1.77% 9/30/2016 8,027,580 \$63.36 \$508,627,469 553,617,000 1.45% 10/3/2016 4,690,830 \$63.42 \$297,492,439 553,617,000 0.85% 10/4/2016 \$63.47 \$427,757,017 553,617,000 1.22% 6,739,515 \$360,981,395 10/5/2016 5,628,023 \$64.14 553,617,000 1.02% 10/6/2016 4,537,658 \$63.85 \$289,729,463 553,617,000 0.82% 0.49% 10/7/2016 2,689,157 \$63.46 \$170,653,903 553,617,000 10/10/2016 3,255,747 \$64.39 \$209,637,549 553,617,000 0.59% 10/11/2016 4,677,665 \$63.72 \$298,060,814 553,617,000 0.84% 10/12/2016 3,210,593 \$63.93 \$205,253,210 553,617,000 0.58% 10/13/2016 3,800,773 \$64.07 \$243,515,526 553,617,000 0.69% 10/14/2016 2,592,322 \$63.37 \$164,275,445 553,617,000 0.47% 10/17/2016 3,829,603 \$62.51 \$239,388,484 553,617,000 0.69% 553,617,000 \$178,210,641 0.51% 10/18/2016 2,830,088 \$62.97 10/19/2016 3,814,669 \$63.93 \$243,871,789 553,617,000 0.69% 10/20/2016 5,115,718 \$63.76 \$326,178,180 553,617,000 0.92% 0.73% 10/21/2016 4,063,470 \$63.54 \$258,192,884 553,617,000 10/24/2016 3,030,534 \$62.99 \$190,893,337 553,617,000 0.55% \$208,441,489 553,617,000 0.62% 10/25/2016 3,414,275 \$61.05 10/26/2016 5,089,744 \$60.90 \$309,965,410 553,617,000 0.92% \$61.42 \$479,794,061 553,617,000 1.41% 10/27/2016 7,811,691 10/28/2016 5,738,248 \$61.46 \$352,672,722 553,617,000 1.04% 1.05% 5,883,774 \$59.44 \$349,731,527 558,901,000 10/31/2016 \$473,098,962 11/1/2016 7,891,559 \$59.95 558,901,000 1.41% 11/2/2016 6,421,295 \$60.14 \$386,176,681 558,901,000 1.15% 4,534,482 \$60.25 \$273,202,541 558,901,000 0.81% 11/3/2016 11/4/2016 5,966,842 \$58.62 \$349,776,278 558,901,000 1.07% 0.93% 11/7/2016 5,216,600 \$60.21 \$314,091,486 558,901,000 4,359,201 0.78% 11/8/2016 \$59.73 \$260,375,076 558,901,000 11/9/2016 6,080,051 \$61.19 \$372,038,321 558,901,000 1.09% 11/10/2016 3,459,121 \$61.87 \$214,015,816 558,901,000 0.62% 11/11/2016 2,934,104 \$61.04 \$179,097,708 558,901,000 0.52% 3,796,591 558,901,000 11/14/2016 \$60.50 \$229,693,756 0.68% 9,026,050 11/15/2016 \$62.56 \$564,669,688 558,901,000 1.61% 3,305,642 \$61.94 \$204,751,465 558,901,000 0.59% 11/16/2016 11/17/2016 3,862,440 \$61.45 \$237,346,938 558,901,000 0.69% 11/18/2016 3,659,752 \$61.51 \$225,111,346 558,901,000 0.65% \$306,181,087 11/21/2016 4,781,838 \$64.03 558,901,000 0.86% 4,510,467 \$64.05 \$288,895,411 558,901,000 0.81% 11/22/2016 11/23/2016 3,399,479 \$65.00 \$220,966,135 558,901,000 0.61% 11/25/2016 2,425,416 \$63.75 \$154,620,270 558,901,000 0.43% 11/28/2016 4,091,864 \$62.00 \$253,695,568 558,901,000 0.73% 11/29/2016 6,681,775 \$60.16 \$401,975,584 558,901,000 1.20% 11/30/2016 15,639,234 \$69.15 \$1,081,453,031 558,901,000 2.80% \$536,094,159 1,40% 7,815,923 \$68.59 558,901,000 12/1/2016 12/2/2016 3,668,960 \$68.56 \$251,543,898 558,901,000 0.66% \$68.29 558,901,000 0.72% 12/5/2016 3,998,465 \$273,055,175 12/6/2016 4,115,408 \$68.21 \$280,711,980 558,901,000 0.74% 0.86% 12/7/2016 4,812,240 \$69.27 \$333,343,865 558,901,000 12/8/2016 3,800,278 \$70.26 \$267,007,532 558,901,000 0.68%

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Anadarko Securities Litigation

	Anadarko Daily Trading Volume						
Date	Reported Volume (PX_VOLUME) (1)	Closing Price (PX_LAST) (1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)		
12/9/2016	4,410,886	\$70.47	\$310,835,136	558,901,000	0.79		
12/12/2016	4,777,631	\$70.79	\$338,208,498	558,901,000	0.85		
12/13/2016	7,528,808	\$72.69	\$547,269,054	558,901,000	1.35		
12/14/2016	5,383,092	\$70.68	\$380,476,943	558,901,000	0.96		
12/15/2016	5,138,152	\$70.33	\$361,366,230	558,901,000	0.92		
12/16/2016	8,414,775	\$70.61	\$594,167,263	558,901,000	1,5		
12/19/2016	2,698,138	\$71.37	\$192,566,109	558,901,000	0.4		
12/20/2016	4,520,957	\$70.97	\$320,852,318	558,901,000	0.8		
12/21/2016	2,430,865	\$70.75	\$171,983,699	558,901,000	0.4		
12/22/2016	2,730,567	\$70.77	\$193,242,227	558,901,000	0.4		
12/23/2016	1,800,713	\$71.25	\$128,300,801	558,901,000	0.3		
12/27/2016	1,875,931	\$71.54	\$134,204,104	558,901,000	0.3		
12/28/2016	2,095,761	\$70.64	\$148,044,557	558,901,000	0,3		
12/29/2016	2,338,145	\$70.11	\$163,927,346	558,901,000	0.4		
12/30/2016	2,447,251	\$69.73	\$170,646,812	558,901,000	0.4		
1/3/2017	3,980,018	\$70.25	\$279,596,265	558,901,000	0.7		
1/4/2017	3,681,112	\$70.81	\$260,659,541	558,901,000	0.6		
1/5/2017	3,872,800	\$71.61	\$277,331,208	558,901,000	0.6		
1/6/2017	5,757,411	\$71.74	\$413,036,665	558,901,000	1.0		
1/9/2017	4,167,751	\$69.98	\$291,659,215	558,901,000	0.7		
1/10/2017	4,141,560	\$69.58	\$288,169,745	558,901,000	0.7		
1/11/2017	3,383,900	\$71.60	\$242,287,240	558,901,000	0.6		
1/12/2017	3,132,659	\$71.49	\$223,953,792	558,901,000	0.5		
1/13/2017	2,632,942	\$71.24	\$187,570,788	558,901,000	0.4		
1/17/2017	2,547,420	\$70.72	\$180,153,542	558,901,000	0.4		
1/18/2017	4,029,899	\$69.89	\$281,649,641	558,901,000	0.7		
1/19/2017	3,678,738	\$70.18	\$258,173,833	558,901,000	0.6		
1/20/2017	3,351,432	\$70.03	\$234,700,783	558,901,000	0.6		
1/23/2017	2,592,341	\$69.86	\$181,100,942	558,901,000	0.4		
1/24/2017	3,449,795	\$71.18	\$245,556,408	558,901,000	0.6		
1/25/2017	3,592,415	\$70,67	\$253,875,968	558,901,000	0.6		
1/26/2017	2,931,033	\$71.14	\$208,513,688	558,901,000	0.5		
1/27/2017	2,474,135	\$70.01	\$173,214,191	558,901,000	0.4		
1/30/2017	4,463,010	\$68.83	\$307,188,978	558,901,000	0.8		
1/31/2017	5,373,847	\$69.53	\$373,643,582	558,901,000	0.9		
2/1/2017	6,303,374	\$68.36	\$430,898,647	558,901,000	1.1		
2/2/2017	5,207,496	\$69.10	\$359,837,974	558,901,000	0.9		
2/3/2017	4,969,330	\$70.40	\$349,840,832	558,901,000	0.8		
2/6/2017	3,189,781	\$69,10	\$220,413,867	558,901,000	0,5		
2/7/2017	4,494,988	\$67.14	\$301,793,494	558,901,000	0.8		
2/8/2017	4,179,267	\$67.15	\$280,637,779	558,901,000	0.7		
2/9/2017	2,824,156	\$68.42	\$193,228,754	558,901,000	0.5		
2/10/2017	4,513,042	\$69,34	\$312,934,332	558,901,000	0.8		
2/13/2017	3,069,435	\$68.14	\$209,151,301	558,901,000	0.5		
2/14/2017	4,310,342	\$68.33	\$294,525,669	558,901,000	0.7		
2/15/2017	5,561,024	\$67,52	\$375,480,340	558,901,000	0.9		
2/16/2017	4,962,225	\$66.60	\$330,484,185	558,901,000	0.8		
2/17/2017	3,455,908	\$66.77	\$230,750,977	558,980,000	0.6		
2/21/2017	3,858,068	\$67.21	\$259,300,750	558,980,000	0.6		
2/22/2017	5,040,618	\$65.84	\$331,874,289	558,980,000	0.9		
2/23/2017	3,308,254	\$65.98	\$218,278,599	558,980,000	0.5		
2/24/2017	4,833,040	\$64.77	\$313,036,001	558,980,000	0.8		
2/27/2017	5,338,747	\$64.90	\$346,484,680	558,980,000	0.9		
2/28/2017	4,246,035	\$64.65	\$274,506,163	558,980,000	0.7		
3/1/2017	3,908,441	\$66,02	\$258,035,275	558,980,000	0.7		
3/2/2017	4,619,255	\$64.09	\$296,048,053	558,980,000	0,8		
3/3/2017	7,090,806	\$63.21	\$448,209,847	558,980,000	1.2		

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		Anadarko Daily Tr	ading Volume		
Date	Reported Volume (PX_VOLUME) (1)	Closing Price (PX_LAST) (1)	Dollar Volume (2)	Shares Outstanding (EQY_SH_OUT) (1)	Daily Share Turnover (3)
3/6/2017	4,957,626	\$63.25	\$313,569,845	558,980,000	0.8
3/7/2017	4,934,796	\$63.16	\$311,681,715	558,980,000	0.8
3/8/2017	7,999,335	\$61.40	\$491,159,169	558,980,000	1.4
3/9/2017	5,747,687	\$61.94	\$356,011,733	558,980,000	1.0
3/10/2017	4,391,871	\$61.89	\$271,812,896	558,980,000	0.7
3/13/2017	4,240,161	\$62.82	\$266,366,914	558,980,000	0.5
3/14/2017	4,491,997	\$61.81	\$277,650,335	558,980,000	0.8
3/15/2017	5,356,386	\$64.08	\$343,237,215	558,980,000	0.9
3/16/2017	2,983,937	\$63.40	\$189,181,606	558,980,000	0.5
3/17/2017	3,666,876	\$63.25	\$231,929,907	558,702,000	'0.€
3/20/2017	3,419,155	\$62.84	\$214,859,700	558,702,000	0.6
3/21/2017	3,048,145	\$61.82	\$188,436,324	558,702,000	0.5
3/22/2017	2,542,999	\$61.63	\$156,725,028	558,702,000	0.4
3/23/2017	4,039,234	\$60.79	\$245,545,035	558,702,000	0.7
3/24/2017	3,559,012	\$60.34	\$214,750,784	558,702,000	0.6
3/27/2017	3,512,404	\$59.94	\$210,533,496	558,702,000	0.0
3/28/2017	4,473,495	\$61.14	\$273,509,484	558,702,000	0.8
3/29/2017	3,912,196	\$62,45	\$244,316,640	558,702,000	0.
3/30/2017	5,742,258	\$62.17	\$356,996,180	558,702,000	1.0
3/31/2017	3,782,021	\$62.00	\$234,485,302	558,702,000	0.6
4/3/2017	2,581,435	\$61.79	\$159,506,869	558,702,000	0.4
4/4/2017	3,132,144	\$62.71	\$196,416,750	558,702,000	0.5
4/5/2017	6,442,906	\$62.85	\$404,936,642	558,702,000	1.3
4/6/2017	2,673,076	\$62.89	\$168,109,750	558,702,000	0.4
4/7/2017	2,205,071	\$62,43	\$137,662,583	558,702,000	0.3
4/10/2017	2,239,403	\$62.89	\$140,836,055	558,702,000	0.4
4/11/2017	2,864,501	\$62.90	\$180,177,113	558,702,000	0.3
4/12/2017	2,470,750	\$62.54	\$154,520,705	558,702,000	0.4
4/13/2017	4,660,881	\$61.09	\$284,733,220	558,702,000	0.8
4/17/2017	3,240,193	\$61.21	\$198,332,214	558,702,000	0.5
4/18/2017	3,353,646	\$60.41	\$202,593,755	558,702,000	0.0
4/19/2017	4,384,582	\$59.13	\$259,260,334	558,702,000	0.3
4/20/2017	3,789.814	\$59.00	\$223,599,026	558,702,000	0.0
4/21/2017	3,720,303	\$59.29	\$220,576,765	558,702,000	0.6
4/24/2017	3,273,916	\$59.37	\$194,372,393	558,702,000	0.5
4/25/2017	3,000,946	\$60.08	\$180,296,836	558,702,000	0.5
4/26/2017	2,744,976	\$59.96	\$164,588,761	558,702,000	0.4
4/27/2017	14,106,206	\$57.12	\$805,746,487	558,702,000	2.5
4/28/2017	5,059,768	\$57.02	\$288,507,971	558,702,000	0,9
		\$56.67	\$279,451,444	558,702,000	3.0
5/1/2017 5/2/2017	4,931,206 5,537,330	\$56.28	\$311,640,932	560,339,000	0.5
Total	2,993,922,513		\$177,785,402,543		
Average	5,404,192		\$320,912,279		
verage Daily Share					1,0

⁽¹⁾ Source: Bloomberg (APC US Equity)

Exhibit B Page 10

⁽²⁾ Calculated Daily Reported Volume times Closing Price

⁽³⁾ Calculated: Daily Reported Volume divided by Shares Outstanding

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EXHIBIT C

			Quarterly Share Ownership for Reporting Institutions								
Ħ	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17	
1	1832 Asset Management L.P.	90,093	379,573	125,258	114,510	109,435	87,525	124,155	124,010	345,01	
2	1919 Investment Counsel, LLC	5,520	5,199	4,465	4,749	4,407	6,197	6,487	6,787	6,23	
3	1st Source Corporation Investment Advisors, Inc.	19,836	19,302	19,477	15,823	12,409	8,740	7,952	7,370	7.36	
4	361 Capital LLC	84	84	84	84	84	747	0	0		
5	3G Capital Management, Inc.	0	300,000	0	0	0	0	0	0	500,00	
6	A Montag & Associates	38,580	38,710	0	0	0	0	0	0	-	
7	A.R.T. Advisors, LLC	0	0	Ō	0	291,665	136,165	29,600	0	70.90	
8	Aberdeen Asset Investments Limited	0	0	0	31,874	24,394	25,938	25,938	27,479	32,0	
9	Aberdeen Asset Managers Ltd.	115,486	143,326	139,032	156,217	143,755	142,923	147,031	140,988	129,98	
10	Aberdeen Standard Investments (Edinburgh)	825,048	679.978	689,404	4,940	4,940	4,940	4,940	4,940	101	
H	Aberdeen Standard Investments Inc.	54,200	54,200	54,200	0	0	0	-0	0		
12.	ABN AMRO Investment Solutions (AAIS)	97,285	98,344	120,030	144,056	92,633	118,967	98,222	113,348	95,26	
13	Absolute Investment Advisers LLC	0	0	0	0	0	0	5,440	9,845	11,47	
14	Acadian Asset Management LLC	1,592	0	0	0	0	0	0	0		
15	Accurate Investment Solutions, Inc	0	0	0	0	51	0	0	0		
16	Accuro Asset Management AG	0	0	0	D	0	0	0	500	50	
17	Achmea Investment Management B.V.	0	0	0	0	0	0	0	0	8.54	
18	AcomeA SGR S.p.A.	6,000	6,000	13,100	13,100	13,100	13,100	13,100	11,600	13,10	
19	Acrospire Investment Management LLC	0,000	0,550	0	0	0	0	0	200	90	
20	ACTIAM N.V	13,144	8,924	7,020	7,431	74,533	97,355	103,629	107,377	105,22	
21	Adage Capital Management, L.P.	3,621,214	3,691,214	4,291,714	4,322,014	6,976,714	6,357,714	6,637,114	5,485,014	6,544,41	
22	Adams Asset Advisors, LLC	13,865	13,865	13,865	13,865	13,865	13,865	13,865	13,865	13,86	
23	Adams Funds Advisers, LLC	275,000	275,000	275,000	275,000	275,000	275,000	275,000	459,100	512,60	
24	Adams Hall Wealth Advisors, LLC	5,743	5,743	5,743	5,743	5,743	0	0	0	21-10	
25	Addison Capital Co.	17,950	17,350	15,400	12,700	12,700	12,700	12,350	10,087	9,9	
26	Adell, Harriman & Carpenter, Inc.	84,571	84,125	80,893	73,462	82,685	80,446	77,377	77,173	78,1	
27	Adirondack Trust Company	180	180	195	180	180	180	525	525	52	
28	Aditya Birla Sun Life AMC Limited	450	0	0	0	0	0	0	0		
29	Administradora General de Fondos Security S.A.	0	0	0	0	4,425	0	0	0		
30	Advantage Investment Management, LLC	623	669	620	620	0	0	0	Ó	51	
31	Adviser Investments LLC	0	0	0	0	0	0	0	0	4,8	
32	Advisor Group, Inc.	0	0	0	0	0	13,187	13,614	23,448	24,34	
33	Advisor Partners, LLC	5,819	6,982	5.746	4,131	9,973	10,886	11,633	12,395	9,53	
34	Advisors Asset Management, Inc.	20,511	18,843	12,797	13,196	15,412	15,722	13,602	22,451	34,9	
35	Advisory Services Network, LLC	1,829	1,758	1,789	2,262	3,034	2,834	2,852	2,852	3,8	
36	AEGON Investment Management B.V	142.428	100,547	108,739	102.533	104,716	88,117	88,117	88,117	60,53	
37	AEGON U.S.A. Investment Management, LLC	0	0	0	0	0	0	0	0	58,5	
38	Aft, Forsyth and Company, Inc	400	400	0	0	0	0	0	0	20,21	
39	Afton Capital Management, LLC	18,000	0	0	0	0	0	0	0		
40	AGF Investments America Inc.	1,600	2,876	1,600	0	0.	0	0	0		
41	AGF Investments Inc.	0	48,796	52,506	54,929	73,935	60,799	40,684	45,684	57,0	
42	Airain Ltd	0	0	116,414	302,980	(3,433	19,581	0	30,090	70,9	
43	AIS Capital Management, L.P.	216	216	216	216	216	216	0	30,050	(6) \$1	
44	AJO, LP	118,050	132,848	124,403	141,102	44,898	16,586	10,413	11,600	16,8	
		1.10,020	132,040	167,7113	171,106	44,020	10,200	10,711.2		10,0	

		Quarterly Share Ownership for Reporting Institutions									
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17	
46	Alambic Investment Management, L.P.	0	0	0	0	0	0	.0	5,000	10,80	
47	Alberta Investment Management Corporation	O	0	0	147,200	116,200	91,300	0	0		
48	Alden Global Capital Ltd.	0	0	117,300	0	0	0	0	0		
49	Aletti Gestielle SGR S.p.A.	0	0	35,000	34,000	46,000	34,000	34,000	19,000	20,00	
50	Alexandria Capital, LLC	300	70,532	0	59,772	204,161	139,147	140,490	67,460	68,09	
51	Alfred Berg Kapitalförvaltning AB	21,038	21,038	21,406	21,406	21,406	22,108	24,048	0		
52	Alfred Berg Kapitalforvallning AS	520	520	520	520	520	520	520	520		
53	Allegis Investment Advisors, LLC	0	O.	0	872	0	a	0	0		
54	Allen & Company LLC	21,445	39,830	42,919	10,364	12,223	12,223	12,223	12,223	12,22	
55	AllianceBernstein Australia Ltd. (Growth)	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,62	
56	AllianceBernstein L.P.	3,091,323	2,599,339	2,509,806	1,119,753	1,084,071	1,086,962	1,129,552	1,081,663	1,075,67	
57	AllianceBernstein Ltd. (Growth)	78,410	81,536	83,749	83,749	83,749	83,749	83,749	83,749	83,74	
58	Allianz Global Investors Asia Pacific Limited	43,500	44,300	44,300	.0	0	0	0	0		
59	Allianz Global Investors GmbH	978,723	797,255	893,564	103,622	118,707	148,395	64,200	21,906	39	
60	Allianz Global Investors Taiwan Ltd	10,700	10,700	10,700	10,700	0	0	0	0		
61	Allianz Global Investors U.S. LLC	13,910	14,300	13,325	14,570	100,450	98,030	590	24,897	26,00	
62	Allianz Investment Management, LLC	114,907	75,244	73,712	73,712	0	0	0	0		
63	Allstate Investments LLC	54,911	0	0	0	0	0	0	0	13,83	
64	Ally Financial Inc.	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,00	
65	Alpha Architect, LLC	0	0	0	0	0	0	0	226		
66	Alpha Asset Management A.E.D.A.K.	3,900	0	0	0	0	0	0	0		
67	Alpine Global Management, LLC	5,793	4,296	0	0	0	.0	0	0		
68	Alpine Woods Capital Investors, LLC	0	0	0	.0	116,000	114,600	164,446	164,446	187,50	
69	Alps Advisors, Inc.	3,319	3,367	0	0	0	0	0	0		
70	Alta Advisers Limited	0	0	35,719	52,699	102,394	0	0	0		
71	Alyeska Investment Group, L.P.	504,700	593,298	0	916,868	893,381	65,823	806,004	0	44,46	
72	Amalgamated Bank Institutional Asset Management & Custody	16,202	17,176	17,680	13,343	13,259	19,417	21,197	31,864	34,69	
73	Amarillo National Bank	.0	2,856	5,632	0	0	0	0	0		
74	AMBS Investment Counsel, LLC	44,600	44,600	0	0	0	0	0	0		
75	American Century Investment Management, Inc.	50,523	0	1,218,484	2,400.466	3,621,077	3,925,325	4,025,339	3,762,302	4,201,24	
76	American Money Management, LLC	8,724	8,699	8,699	8,093	7,843	16,150	16,096	15,652		
77	American National Insurance Co	94,075	80,500	80,500	80,500	80,200	80,200	80,200	80,200	80,20	
78	American National Registered Investment Advisor, Inc.	10,266	10,266	10,266	10,266	10,266	10,266	10,266	10,266	10,26	
79	Ameritas Investment Partners, Inc.	9,446	9,446	9,446	9,760	9,760	10,405	13,357	13,593	13,13	
80	AMF Pensionsforsäkring AB	8,700	43,400	41,500	0	0	0	0	0		
81	Amica Mulual Insurance Company	85,245	48,241	48,241	48,241	48,241	48,241	48,241	51,641	51,64	
82	Amica Retirce Medical Trust	4,665	2,892	2,892	2,892	2,892	2,892	2,892	3,336	3,33	
83	Amiya Capital LLP	0	0	10,770	10,770	10,770	10,770	10,770	10,770	10,77	
84	AMP Capital Investors Limited	353,996	218,748	233,898	240,036	264,207	248,348	264,809	301,870	313,55	
85	Amundi Asset Management	413,912	365,255	427,651	448,103	493,877	533,638	539,268	590,761	587,81	
86	Amundi Deutschland GmbH	95,088	95,088	80,815	79,531	159,062	85,609	74,020	70,599	81,21	
87	Amundi Ireland Limited	2,105	2,105	109,779	111,143	111,143	111,143	111,143	3,493	7,13	
88	Amundi Pioneer Asset Management, Inc.	43,393	42,855	43,264	573,596	573,596	570,736	583,063	623,505	730,36	
89	Amundi SGR SpA	0	0	13,098	0	0	0	0	0	1 157	
90	Analytic Investors, LLC	0	0	0	0	0	0	.0	0	69,45	

		Quarterly Share Ownership for Reporting Institutions								
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
91	Anchor Bolt Capital, LP	282,212	423,615	522,519	0	0	0	0	0	295,56
92	Anchor Capital Advisors LLC	101,108	100,678	100,143	98,073	363,082	860,323	596,033	500,356	306,47
93	Ancora Advisors, L. L. C.	2,850	2,850	0	3,050	3,050	3,050	3,050	1,800	
94	Andra AP-Fonden	45,500	34,700	37,600	55,200	43,500	30,100	37,900	61,600	73,9
95	Anima SGR S.p.A.	34,771	34,771	144,076	121,759	107,906	95,906	222,906	279,406	239,6
96	Aperio Group, LLC	145,189	157,272	157,989	140,446	195,059	218,852	232,838	225,427	227,6
97	APG Asset Management N.V.	1,080,245	1,099,708	723,602	353,482	138,558	847,851	1,462,199	1,287,999	1,240,2
98	Apriem Advisors	500	2,500	2,500	500	1,000	632	0	32	
99	AQR Capital Management, LLC	1,398,512	800,267	465,432	519,557	12,765	23,378	328,735	639,528	995,9
100	Arab Bank (Switzerland) Ltd.	0	8,946	8,946	8,946	0	0	D	0	
101	Archford Capital Strategies, LLC	0	0	D	1,139	0	1,139	1,139	0	3
102	Arden Asset Management LLC	23,864	0	0	0	0	Ó	0	0	
103	Ardsley Advisory Partners LP	0	0	5,000	.0	0	Ü.	0	.0	
104	Argenta Fund	2,470	2,470	0	0	0	0	0	0	
105	Argentière Capital AG	0	0	0	0	60,000	0	0	0	55,0
106	Aris Wealth Services, Inc.	238	238	238	238	238	238	238	238	2
107	Aristotle Atlantic Partners, LLC	0	0	0	0	0	0	0	0	2
108	Arizona State Retirement System	141,726	141,726	139,026	137,226	137,826	125,226	125,726	138,126	138,4
109	Arosa Capital Management LP	55,000	245,000	386,500	0	225,000	50,000	110,375	310,000	150,1
110	Arrowgrass Capital Partners (US) LP	33,000	243,000	0 002	0	225,000	160,000	240,000	300,000	306,3
111	Arrowstreet Capital, Limited Partnership	0	0	0	0	110,900	110,900	110,900	110,900	110,5
112	ARS Investment Partners LLC	126,560	152,110	81,513	143,030	14,600	14,600	130,888	152,012	14,9
113	Artemis Investment Management LLP	23,851			143,030	14,985			33,867	33,8
114	The first of the f		33,354	33,354	0	14,982	34,302	33,867	0	23,0
115	Artisan Partners Limited Partnership	577,580	594,903 347	632,825		302	302	280	248	2
	Ascendant Advisors, LLC Ascent Wealth Partners, LLC	347 7,687		318	318	0	0	280	248	4
116		7,087	7.481	0	0	0	0	10.210	0	
118	Ashburton (Jersey) Ltd.					29,772		19,710		10.4
119	Ashfield Capital Partners, LLC	350,850	342,265	307,144	284,073		30,056	29,345	24,936	10,6
	Ashford Capital Management, Inc.	7,054	7,054	7,054	5,468	5.112	5,112	5,112	5,083	3,0
120	Aspen Investment Management Inc.	3,162	3,162	0		0	0.		0	inco
121	Assenagon Asset Management S.A.	114,666	120,891	130,746	126,464	123,071	118,653	135,122	161,083	176,3
122	Asset Management One Co., Ltd.	90,070	84,401	85,938	60.462	165,547	113,409	103,409	0	
(23	Asset Management One International Ltd	4,560	4,560	0	0	0	0	0	0	0.70
124	Asset Management One USA Inc.	140,553	125,773	128,122	109,558	131,642	121,767	107,197	941,010	850,1
125	Asselmark, Inc.	14,688	13,649	3,633	16,837	32	2	1	1,639	1,5
126	Astenbeck Capital Management LLC	546,040	546,040	162,402	D	0	0	0	0	200
127	Atalanta Sosnoti Capital, LLC	0	0	0	0	0	0	678,233	884,142	831,
128	Atherton Lane Advisers, LLC	256,098	265,043	274,555	269,760	269,760	269,760	0	0	
129	Atria Investments LLC	0	0	0	0	0	3,746	5,847	6,972	7,5
130	Atwood & Palmer Inc.	304	304	304	304	304	304	304	304	
131	Aull & Monroe Investment Management Corp.	3,382	2,882	0.	.0	0	0	0	0	
132	Aureus Asset Management, LLC	23,492	49,104	61,976	0	0	0	0	0	
133	Aurora Investment Management L. L. C.	6,600	0	7,553	7,553	7,553	7,553	7,553	7,553	7,5
134	Ausdal Financial Partners, Inc.	0	0	0	685	0	0	0	D	
135	Avalon Advisors, LLC	0	4,576	207,689	161,390	17,770	14,756	17,259	17,487	15,9

Exhibit C

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				Quarter	v Share Own	ership for Re	porting Institu	ntions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
136	Aveo Capital Partners, LLC	0	0.	0	0	0	0	0	2,999	
137	Aviance Capital Management LLC	4,387	3,269	0	0	0	4,362	0	0	
138	Aviance Capital Partners, LLC	0	0	0	0	0	Û	0	16,344	12.19
139	Aviva Investors France S.A.	65,000	34,800	34,800	31,257	31,257	0	0	0	
140	Aviva Investors Global Services Limited	269,489	260,809	257,098	276,329	280,166	304,145	316,044	363,045	343,25
141	AXA Investment Managers Deutschland GmbH	600	600	600	600	600	600	600	600	
142	AXA Investment Managers Paris	5,000	29,312	29,312	10,600	10,600	13,768	15,273	15,273	15,27
143	AXA Investment Managers UK Ltd.	94,905	118,609	118,028	84,591	91,133	44,229	53,680	52,305	69,62
144	AXA Rosenberg Investment Management LLC	220,600	219,500	216,600	194,336	194,400	87,000	89,800	89,800	89,80
145	AXA Rosenberg Investment Management Ltd.	56,600	30,400	30,400	30,400	30,400	0	0	0	00.00
146	Axxion S.A.	25,500	12,000	12,000	0	0	0	0	0	
147	Ayco Asset Management	4,200	3,604	4,600	5,505	4,716	0	0	0	
148	AZ FUND Management SA	0	3,660	3,660	0	0	28,000	28,000	0	
149	Azimut Capital Management Sgr SpA	0	21,660	21,660	21,660	21,660	21,660	21,660	0	
150	B. Riley Wealth Management, Inc	1,018	668	0	0	0	0	0.	0	
151	Baillie Gifford & Co.	0	0	0	0	0	0	0	0	329,94
152	Baird Investment Management	14,046	13,727	14,201	14,022	11,940	11,171	10,646	15,787	16,61
153	Baker Ellis Asset Management LLC	3,525	3,525	3,025	2,825	2,825	2,825	2,725	2,725	2,72
154	Balasa Dinverno & Foltz, L.L.C.	0,525	0,323	3,950	6,962	0	0	0	2,723	4,74
155	Baldwin Brothers Inc.	0	0	0,930	0,902	250	250	250	250	25
156	Balentine LLC	200	200	250	200	200	200	2,252	2,252	2,25
157	Bâloise Asset Management	0	0	0		1.500		1,147	1,148	1,14
158	Baltimore-Washington Financial Advisors, Inc.	0	0	104	1,164	1,300	1,148	1,147	1,148	1,14
159	Balyasny Asset Management LP	0	0	0	0	0	0			
160	Banca Finnat Euramerica S. p. A.	3,750				0		101,400	51,590	16,20
			3,750	4,000	3,000		1,500	2,500	3,000	3,00
161	BancorpSouth Investment Services Inc (Texas)	3,837	3,807	4,407	0	_0	0	0	0	
162	Bank Haposlim B.M.	4,810	0	0	0	0	6,960	6,960	13,380	
163	Bank of China Investment Management Co., Ltd	423	341	341	311	311	590	590	937	93
164	Bank of Nova Scotia	8,711	9,059	9,429	360,094	9,499	10,159	10,966	12,587	127,80
165	Bank of Oklahoma, N.A.	35,643	50,806	22,241	11,070	28,369	27,738	25,378	29,293	28,65
166	Bank of the West	39,820	44,801	58,047	34,469	52,169	71,892	90,830	90,254	92,75
167	Bank Vontobel AG (Private Banking)	24,210	23,870	25,340	0	0	0	0	0	52.5
168	Bankia Fondos, S.G.I.I.C., S.A.	11,918	11,918	11,906	11,916	11,916	17,932	17,933	16,928	18,42
169	Banque Cantonale Vaudoise	0	0	0	0	0	0	8,483	8,483	14,66
170	Banque Degroof Petercam Luxembourg S.A.	5,750	5,750	5,750	5,750	5,750	5,750	5,050	4,015	4,01
171	Banque Degroof Petercam N.V	0	0	27,250	33,000	.0	0	0	0	100
172	Banque Pictet & Cie S.A.	208,236	0	209,850	225,000	69,125	72,375	211,085	225,422	216,40
173	Barclays Bank (Suisse) S.A.	0	0	1,379	1,379	1,379	1,379	0	0	
174	Barclays Bank PLC	0	0	a	0	.0	0	0	12,868	10,39
175	Barclays Bank PLC (Barclays Capital Fund Solutions)	0	0	41,950	0	0	0	0	0	
176	Barclays Bank PLC Hong Kong	0	0	0	O	0	9,306	9,306	9,306	9,30
177	Barclays Capital	1,503,199	1,495,726	1,036,657	1,062,986	205,540	865,465	278,178	277,286	342,66
178	Barclays Capital Inc.	103,351	92,603	103,134	40,844	64,244	87,125	63,463	110,722	81,28
179	Barclays Wealth Trustees (U.S.) N.A.	0	0	0	28,372	40,220	37,992	37,992	37,992	37,93
180	Bardin Hill Investment Partners LP	75,000	95,122	120,122	0	0	0	0	0	

				Quarter	v Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
181	Baring Asset Management (Asia) Limited	a	2,620	2,620	2,620	0	0.	0	0	0
182	Baring Asset Management Ltd	183,463	183,463	183,463	183,463	183,463	183,463	183,463	183,463	D
183	Baring Asset Management, LLC	183,463	277,429	238,745	91,684	0	0	0	0	
184	Barings LLC	37,665	8,865	8,775	8,775	0	0	0	0	(
185	Baron Capital Management, Inc.	18,839	19,039	19,039	0	0	0	26,800	25,100	21,700
186	Barrett Asset Management, LLC	80,945	78,845	103,110	85,835	75,311	77,276	78,525	77,554	80,53
187	Barrow, Hanley, Mewhinney & Strauss, LLC	26,828	21,716	14,189	16,145	492	896,606	843,094	712,759	700,54
188	Bartlett & Company	21,686	21,686	21,686	21,386	14,800	9,200	9,200	9,200	9,20
189	Barton Investment Management, LLC	10,200	10,200	10,200	10,200	10,200	10,200	9,900	9,900	9,90
190	BayernInvest Kapitalanlagegesellschaft mbH	947	947	947	947	0	0	0	D	
191	Baystale Wealth Management LLC	0	0	.0	0	0	0	α	1,127	1,15
192	BB&T Investment Services, Inc.	0	0	0	D	0	0	0	102	11
193	BB&T Securities, LLC	17,958	19,274	18,490	23,776	39,329	35,640	34,271	35,221	38,19
194	BBGI Group S.A.	0	0	0	0	0	4,000	4,000	0	
195	BBT Capital Management, LLC	89,661	69,661	69,661	62,161	37,306	37,306	38,306	38,306	38,30
196	BBVA Asset Management, S.A., S.G.I.I.C.	14,798	14,798	31,183	25,939	7,585	7,490	7,449	9,530	19,28
197	BBVA Compass	5,665	4,131	0	0	0	0	0	0	
198	BBVA Patrimonios Gestora S.G.I.I.C., S.A.	12,087	0	0	0	0	0	0	0	
199	BCEE Asset Management	2,627	2,627	1,523	1,523	1,523	1,523	0	0	
200	BEA Union Investment Management Limited	1,316	531	531	0	0	0	0	0.	
201	Beacon Capital Management, Inc.	0	0	0	4	0	0	0	0	
202	Beacon Trust Company	7,568	3,189	0	0	0	0	0	0	
203	Beck, Mack & Oliver LLC	10,113	10,113	9,807	9,307	7,532	7,394	7,394	7,394	6,44
204	Bel Air Investment Advisors, LLC	0	0	0	145	145	145	145	145	14
205	Bellwether Investment Group, LLC	D	0	0	0	0	1,045	1,045	448	21
206	Benin Management Corporation	0	0	0	0	0	0	7,507	7,607	7,60
207	Benjamin F. Edwards & Company, Inc.	1,274	1,274	1,184	1,187	1,634	8,634	13,234	8,484	6,850
208	Berkshire Asset Management, LLC	4,913	4,913	5,463	5,463	7,448	11,725	9,048	8,787	7,74
209	Bessemer Trust Company, N.A. (US)	767	653	1,011	1,424	1,682	1,063,322	1,281,693	1,975,104	2,006,623
210	Bela Wealth Group, Inc	2,617	2,617	2,617	2,617	0	0	0	0	Planting
211	BG Fund Management Luxembourg S.A.	2,329	2,329	2,329	2,329	2,329	2,329	2,096	2,449	2,44
212	BI Asset Management Fondsmæglerselskab A/S	0	278,400	278,400	327,500	326,300	374,500	0	483,200	614.000
213	Bienville Capital Management, LLC	0	0	0	Ü	0	7,223	7,342	7,342	5,72
214	Birch Hill Investment Advisors LLC	27,425	27,425	26,825	26,825	26,509	25,909	24,559	21,797	21,64
215	BlackRock (Netherlands) B V	74,702	73,179	75,231	76,159	106,645	104,098	109,207	114,758	117,55
216	BlackRock (Singapore) Limited	149,986	74,162	74,162	55,870	60,805	79,553	103,186	97,503	86,52
217	BlackRock Advisors (UK) Limited	506,881	365,948	378,258	337,528	324,217	321,531	310,242	362,127	339,13
218	Blackrock Alternative Advisors	0	0	0	3,928	7,329	5,754	2,599	8,305	12,05
219	BlackRock Asset Management Australia Limited	135,171	135,171	0	0	0	0	0	0	12,00
220	BlackRock Asset Management Canada Limited	352,667	311,800	312,141	308,423	321,613	325,249	344,984	357,728	360,37
221	BlackRock Asset Management Ireland Limited	1,309,262	1,276,680	1,317,664	1,296,275	1,313,292	1,349,904	1,400,521	1,643,029	1,629,000
222	BlackRock Financial Management, Inc.	7,409,678	6,654,229	6,239,596	6,869,141	8,369,654	8,452,607	8,052,714	7,484,818	7,082,16
223	BlackRock Institutional Trust Company, N.A.	22,259,252	19,713,388	19,842,918	20,395,413	20,157,695	20,537,253	22,117,205	23,485,299	23,787,95
224	BlackRock International Ltd.	154,229	33,045	85,312	97,381	58,323	94,915	92,783	100,711	80,14
225	BlackRock Investment Management (Australia) Ltd.	360,291	220,993	220,202	248,138	235,211	250,078	231,098	254,788	259,36

				Quarter	y Share Own	ership for Rep	porting Institu	itions		
#_	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
226	BlackRock Investment Management (Korea) Ltd	100	100	0	0	0	0	0	D	
227	BlackRock Investment Management (UK) Ltd.	5,221,826	5,310,270	5,166,292	5,188,874	5,728,510	5,798,987	5,833,766	5.544,447	5,681,03
228	BlackRock Investment Management, LLC	1,717,498	1,696,650	1,773,878	1,942,356	1,979,472	2,159,463	2,232,705	2,226,284	2,192,86
229	BlackRock Japan Co., Ltd.	771,506	610,586	639,341	694,866	676,350	705,005	756,927	760,201	684,07
230	BlackRock Mexico Operadora SA de CV SOFI	27,273	31,672	33,011	35,649	35,212	52,756	52,901	55,613	65,22
231	Blackstone Alternative Investment Advisors LLC	1,268	1,268	1,268	1,268	3,500	0	0	0	
232	BLB&B Advisors, LLC	0	0	0	0	0	4,551	4,551	4,551	4,15
233	BlueCrest Capital Management LLP	0	73,827	123,711	58,243	186,547	116,749	279,183	64,326	18,59
234	Bluefin Trading, LLC	0	0	0	0	0	0	0	3,750	
235	BlueMountain Capital Management, LLC	3,210	1,164	0	138,911	144,762	O	Ö	Ú	1,25
236	BMO Assel Management Inc.	54,871	55,071	52,771	53,371	52,379	57,579	63,879	68,579	76,27
237	BMO Asset Management U.S.	373,857	350,344	7,208	5,606	5,550	2,951	2,945	2,946	4,73
238	BMO Capital Markets (US)	1,285,692	983,694	157,815	1,352,263	0	52,032	4,852	44,622	91,24
239	BMO Global Asset Management	17,270	16,681	16,085	17,354	16,778	18,369	18,527	20,148	30,69
240	BMO Harris Bank N.A.	82,166	77,052	47,898	39,115	36,546	37,934	36,175	34,173	31,25
241	BMO Nesbitt Burns Inc.	1,505	1,453	167	475	9,106	10,414	0	0	
242	BNP Paribas Asset Management Belgium S.A.	2,647	2,647	530	143	143	143	143	143	14
243	BNP Paribas Asset Management France SAS	21,115	49,375	53,474	13,283	33,644	35,594	39,131	43,302	39,49
244	BNP PARIBAS ASSET MANAGEMENT Japan Limited	0	0	0	Ō	0	22,108	22,108	22,108	22,10
245	BNP Paribas Assel Management Nederland N.V.	0	0	0	25	16	16	16	16	1
246	BNP Paribas Asset Management USA, Inc.	21,115	49,375	53,474	53,474	61,472	64,149	65,224	180,403	180,40
247	BNP Paribas Investment Partners España SA SGIIC	1,001	1,001	699	699	0	0	0	0	1 2 1
248	BNP Patibas Securities Corp. North America	224,072	437,495	1,108,388	918,866	1,144,330	288,401	332,696	393,861	839,23
249	BNY Mellon Asset Management	1,767,320	1,772,647	1,729,325	1,693,657	1,673,488	1,673,168	1,759,083	1,941,005	1,924,80
250	BNY Mellon Wealth Management	872,982	1.098,933	1,095,677	278,221	216,081	464,133	423,519	372,372	409,22
251	Bornge Capital LLC	201,772	175,592	0	0	0	0	0	0	405,22
252	BOCI-Prudential Asset Management Ltd.	1,500	1,500	8,659	8,659	9,474	9,474	8,659	8,659	18,42
253	BofA Global Research (US)	2,882,125	3,331,331	3,272,567	3,993,712	3,823,871	3,656,965	3,662,498	3,504,483	3,895,98
254	Boothbay Fund Management, LLC	0	2,943	3,446	6,200	0	0.00,000	27,941	13,917	18,41
255	Bosera Asset Management Co., Ltd.	1,471	982	982	827	827	842	842	1,020	1,02
256	Boston Advisors, LLC	151,700	0	0	0	0	0	0	0	1,02
257	Boston Family Office, LLC	21,949	23,168	26,243	25,758	25,258	29,928	29,463	29,463	29,83
258	Boston Financial Management LLC	108,881	115,870	116,567	87,047	55,215	41.068	32,797	32,441	23,56
259	Boston Partners	3,658,508	3,469,060	3,780,382	4,080,347	3,069,920	2,635,781	2,432,847	3,824,336	939,36
260	Boston Private Bank & Trust Company	16,550	16,550	16,550	16,550	16,550	16,550	16,550	16,550	333,30
261	Boston Private Wealth LLC	19,661	16,936	15,445	15,205	13,571	12,227	12,541	13,782	13,36
262	Bourgeon Capital Management, LLC	16,425	20,125	26,725	8,775	8,975	8,525	4,525	6,725	9,02
263	BP Capital Fund Advisors, LLC	10,423	20,123	20,723	96,732	136,949	169,132	147,789	147,789	90,26
264	BP Capital Management, L.P.	0	0	0	0	0.00,949	109,132	89,881	89,881	89,88
265	BP Investment Management Limited		66,000	66,000		62,000			69,000	69,00
266	BPI Gestão de Activos - S.G.F.I.M., S.A.	72,000	3,488	00,000	66,000	02,000	62,000	62,000	09,000	69,00
267		3,704	36,990			17,460	17,445		20,570	20,69
268	Bradley, Foster & Sargent, Inc. Brandywine Global Investment Management, LLC	36,925	30,490	36,175 0	31,625	0 0		18,070 1,646,519	1.575,155	1,650.89
269	Brave Asset Management, Inc.	10,550	10,550	10,550	10,550	10,550	1,729,061	10,550	10,550	9,30
203	Diave observiousgement, the	10,220	10,530	10,230	10,230	10,330	10,230	10,250	10,520	3,30

				Quarter	ly Share Own	ership for Rep	oorting Institu	tions		
n n	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
271	Brenham Capital Management, L.P.	0	0	α	1,400,000	0	0	0	0	0
272	Brick & Kyle, Associates	300	300	300	.0	0	0	0	0	.0
273	Bridges Investment Management Inc	67,172	66.767	66.767	48,109	44,468	40,405	38,830	38,323	21,378
274	Bridgewater Advisors Inc.	1,885	1,885	1,885	1,885	1,885	0	0	0	(
275	Bridgewater Associates, LP	136,700	133,500	145,100	157,900	163,380	149,380	155,480	140,580	140,580
276	Bridgeway Capital Management, Inc.	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
277	Brigade Capital Management, LP	0	0	0	D.	0	0	105,000	112,500	
278	Brinker Capital Inc.	0	0	0	0	0	0	0	9,327	9,394
279	British Columbia Investment Management Corp	260,360	137,716	159,124	189,387	176,691	195,133	170,346	205,352	209,317
280	Brompton Capital Advisors, Inc.	0	0	0	0	0	0	0	20,000	20,000
281	Bronfman E.L. Rothschild, L.P.	0	0	0	3,033	2,774	2,614	4,028	5,278	6,463
282	Bronson Point Management, LLC	n	222,500	45,000	150,000	280,000	130,000	0	0	165,000
283	Brookfield Public Securities Group LLC	0	1,200	1,150	1,750	10,290	12,890	0	-0	· ·
284	Brookstone Capital Management, LLC	0	0	25	.0	0	0	0	0	T.
285	Brown Advisory	48,448	44,078	49,064	66,619	96,798	85,007	93,170	100,583	99,998
286	Brown Advisory Securities, LLC	8,771	8,771	8,638	8,288	8,309	8,563	8,511	8,791	8,765
287	Brown Brothers Harriman & Company	13,531	13,146	12,846	9,946	9,946	9,946	9,946	8,946	8,561
288	Bruderman Asset Management, LLC	0	0	0	0	0	0	0	27	0,201
289	Buffington Mohr McNeal	U	Ö	0	6,795	6,745	6,695	4,750	4,750	4,435
290	Burke & Herbert Bank & Trust Co.	0	0	0	0,775	0	0,033	3,436	3,436	3,436
291	Burt Wealth Advisors, Inc.	940	940	0	a	0	0	0	200	2,750
292	BW Gestão de Investimentos Ltda.	3,300	3,300	0	0	0	0	0	0	0
293	C&M Finances	0.00	0	0	2,270	2,270	2,270	2,270	2,270	2,270
294	CA Indosuez Wealth (Europe) S.A.	0	0	0	2,270	2,270	2,270	2,270	16,782	18,253
295	Cable Hill Partners, LLC	0	0	0	0	0	0	31	10,702	10,423
296										
297	Cadence Capital Management, LLC	13,830	13,690	12,668	11,869	15,194	11,316	10,874	10,565	10,299
	Caisse de Depot et Placement du Quebec	1,193,600	1,211,968	1.149.400	1,041,000	194,827	160,627	164,627	124,927	16,727
298	Calamos Advisors LLC	439,105	435,225	430,871	405,463	412,137	537,446	419,273	426,853	316,389
299	Caldwell & Orkin, Inc.	0	0	0	4,200	0	0	0	0	0
300	California Public Employees' Retirement System	1,350,477	1,346,877	1,355,777	1,329,877	1,354,177	1,355,977	1,334,077	1,428,677	1,316,177
301	California State Teachers Retirement System	952,879	927,679	955,882	971,261	1,109,577	1,113,624	1,229,724	1,198,924	1,148,524
302	Callahan Advisors, LLC	14,645	14,272	15,434	14,087	7,221	9,862	10,712	20,433	24,393
303	Callan LLC	13,677	13,677	6,677	6.677	7,077	9,008	17,602	20,056	21,976
304	Camarda Financial Advisors, LLC	200	200	0	0	0	0	0	Ó	0
305	Cambiar Investors LLC	1,628,229	1,417,175	989,542	1,653,658	0	0	0	0	(
306	Cambrian Capital LP	195,934	138,302	138,302	136.848	196,003	142,803	142,803	128,916	114,946
307	Cambridge Trust Company	152,907	152,051	148,974	10,406	7,955	9,279	9,974	9,596	12,397
308	Campbell & Company, Inc.	0	24,128	0	0	0	.0	0	0	(
309	Canal Insurance Company	80,000	80,000	80,000	80,000	80,000	80,000	80,000	60,000	60,000
310	Canandaigua National Bank & Trust Company	3,420	2,975	0	0	0	0	0	0	(
311	Candriam Belgium S.A.	49,465	49,399	43,282	51,333	57,783	68,384	71,958	76,342	89,034
312	Candriam Luxembourg S.A.	84,111	102,657	94,796	0	105,611	86,007	97,567	104,894	117,27
313	Candriam S.A. (France)	698	698	698	3,263	3,263	3,263	3,263	3,263	2,688
314	Cape Cod Five Cents Savings Bank	2,878	2,816	0	0	0	0	0	0	0
315	Capital Fund Management S.A.	0	29,632	503,324	1,558,793	0	0	0	0	467,507

				Quarter	ly Share Own	ership for Re	porting Institu	itions		
ņ.	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
316	Capital Guardian Trust Company	303,485	299,763	256,588	241,788	402,780	69,280	59,660	51,436	51,335
317	Capital Innovations LLC	17,655	17,383	26,400	26,075	17,375	16,875	15,965	10,520	10.810
318	Capital International Investors	803,000	869,900	765,900	979,900	1,039,000	0	0	0	0
319	Capital International Ltd.	37,100	37,100	93,500	93,500	98,700	79,500	79,500	79,500	81,100
320	Capital International Sarl	19,000	16,900	46,600	46,600	46,600	42,100	42,100	36,500	34,200
321	Capital International, Inc.	11,330	11,330	35,090	35,090	21,300	18,400	16,000	21,200	20,700
322	Capital Investment Advisors, LLC	3,195	3,237	0	0	0	0	0	3,145	3,351
323	Capital Investment Trust Corporation	16,356	14,719	14,719	14,719	14,719	14,719	14,719	14,719	14,719
324	Capital One Asset Management, LLC	13,532	10,576	9,242	7,666	7,845	7,155	7,820	3,862	4,574
325	Capital Research & Management Company (Fixed Income)	0	0	0	0	0	4,400	0	0	
326	Capital Research Global Investors	0	0	0	176,000	176,000	0	0	0	0
327	Capital Wealth Planning, LLC	4,000	4,000	4,000	0	0	4,000	4,000	4,000	4,000
328	Capital World Investors	0	4,400	4,400	4,400	4,400	4,400	0	0.000	0
329	Capstone Investment Advisors, LLC	0	24,266	12,008	14,821	10,600	0	0	0	58,532
330	Carlson Capital, L. P.	384,484	479,025	848,797	0	1,088,400	1,845,437	2.066,449	1,574,373	1,378,977
331	Carlton Holferkamp & Jenks Wealth Management, LLC	4,100	6,595	6,958	4,983	4,853	4.808	4,808	0	0.370,277
332	Carmignac Gestion	3,463,689	3,517,789	4,622,406	4,588,906	12,161,068	13,619,742	13,944,742	15,260,114	11,727,702
333	Carrel Asset Management, LLC	55,163	55,390	55,740	52,565	56,402	55,052	56,952	57,752	57,948
334	Carroll Financial Associates, Inc.		4,480	The second secon			and the same of th			
335		3.706		5,379	5,568	5,478	5,478	5,353	3,568	2,272
336	Carson Wealth Management Group	3,860	4,125	6,157	9,666 400	17,964	16,993	17,558	18,816	20,194
337	Casa4Funds Luxembourg European Asset Management S.A.			400				0		
	CastleAik Management, LLC	36,000	2,000	2,000	2,000	112,000	308,000	163,100	65,900	83,940
338	CATAM Asset Management AG	0	0	0	0	0	0	0	2,200	
339	Cavanal Hill Investment Management, Inc.	29,096	33,126	22,957	12,620	6,000	16,260	15,883	14,323	21,323
340	Caxton Associates LP	121,000	0	0	0	55,000	0	0	27,495	0
341	Caymus Capital Partners, L.P.	0	0	0	0	717,100	886,700	1,113,500	1,260,100	1,003,200
342	Cedar Wealth Management, LLC	0	0	0	0	130	297	297	297	297
343	Central Bank & Trust Company	2,610	2,582	2,405	2,055	1,700	0	0	0	0
344	Central Trust & Investment Company	69,620	69,577	68,647	68,535	66,805	66,013	62,008	57,083	48,128
345	Century Securities Associates, Inc.	0	0	0	0	0	0	6,829	3,376	86
346	CenturyLink Investment Management Company	0	0	0	7,108	0	0	0	0	
347	Ceredex Value Advisors LLC	0	0	0	0	1,239,750	1,054,300	0	0	0
348	Cerity Partners LLC	0	0	0	0	0	0	0	0	6,273
349	Certium Assel Management LLC	5,697	5,697	5,697	5,697	5,697	0	0	0	0
350	Cetera Advisor Networks LLC	6,105	6,105	6,703	6,027	5,443	5,345	7,211	5,373	5,061
351	Chang Xin Asset Management Co., Ltd.	332	339	339	479	479	0	0	0	. 0
352	Chapter IV Investors, LLC	165,000	0	0	0	0	D	0	0	
353	Charles D. Hyman & Company	2,652	2,652	0.	0	0	0	0	0	0
354	Charles Schwab Investment Management, Inc.	1,305,843	1,333.536	1,365,361	1,425,400	1.478,818	1,535,947	1,640,631	1,828,602	1,975,465
355	Charter Research & Investment Group, Inc.	19,950	19,775	14,225	18,550	17,950	17,750	11,350	11,350	11,350
356	Checchi Capital Advisers, LLC	3,658	3,824	4,262	0	3,417	3,545	3,904	3,845	4,659
357	Chelsea Management Company	203,657	196,267	194,053	127,544	127,493	97,946	94,421	91,801	85,086
358	Chemical Bank	12,284	10,209	9,384	7,949	5,229	4,569	4,414	3,960	3,370
359	Chesley, Tatt & Associates L.L.C.	13,328	13,578	11,328	12,754	11,650	11,650	11,650	11,050	10,824
360	Chevy Chase Trust Company	400,124	406,484	419,908	423,377	430,588	438,011	457,509	469,302	553,937

				Quarter	y Share Own	ership for Re	porting Institu	tions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
361	Chicago Equity Partners, LLC	2,425	0	0	0	0	0	0.	3,020	8,860
362	Chicago Partners Wealth Advisors	7,763	7,759	7,793	7,834	7,843	7,850	8,856	8,862	8,868
363	Chilton Capital Management, LLC	0	0	0	0	0	0	39,131	59.745	66,27
364	Chilton Investment Company, LLC	0	4,200	4,200	4,200	0	0	0	0	
365	China Asset Management Co., Ltd.	88,000	88,000	88.000	17,000	17,000	0	0	0	
366	China International Fund Management Co., Ltd.	1,175	1,584	1,584	2,559	2,559	7,000	7,000	12,391	12.39
367	Choate Investment Advisors LLC	4,120	0	0	4,120	0	0	0	0	
368	Cholet Dupont Asset Management	1,100	1,100	0	0	0	0	0	0	
369	CI Investments Inc.	245,350	254,950	264,350	276,250	254,250	267,450	321,250	325,000	179,45
370	CIBC Asset Management Inc.	117,358	109,242	115,078	96,942	99,292	129,714	108,381	115,635	121,80
371	CIBC Bank USA.	2,430	0	14,264	12,614	12,799	12,799	12,289	4,889	4,88
372	CIBC Private Wealth Management	1,091,953	1,107,647	1,348,870	1,041,004	1,696,471	1,738,473	1,802,101	1,822,509	1.842,35
373	CIBC World Markets Corp.	0	600,000	200,000	1,203,250	2,253,220	4,010	404,134	288,365	58,38
374	CIBC World Markets Inc.	0	0.00,000	200,000	0	0	0,070	0	257,060	48,28
375	CIGNA Investments, Inc	0	D	0	0	0	0	0	20,705	23,08
376	CIM Investment Monagement Inc.	13,595	0	0	0	0	0	0	20,705	23,00
377	Cipher Capital LP	0.292	19,745		0	0	0	0	0	30,21
378	Citadel LLC	5,265,091	6,980,963	50,665	4,814,792					
379	Citi Investment Research (US)	991.422		9,004,562		485,518	276,532	5,727,609	3,274,848	2,636,94
380			1,367,340	384,649	395,602	751,761	505,372	376,049	302,750	367,70
381	Citizens Financial Group, Inc.	56,946	7,255	5,522	3,074	2,107	1,926	1,901	1,556	1,54
382	City Holding Company	25	25	25	25	25	25	25	25	2
	City National Rochdale, LLC	49,880	49,078	45,045	36,027	31,951	29,905	27,379	26,324	23.78
383	City of London Investment Management Co. Ltd.	0	0	4,000	0	0	0	0	0	
384	CKW Financial Group, LLC	209	209	0	0	0	0	1,000	1,000	1,00
385	Clairwood Capital Management Inc.	0	.0	0	0	0	0	0	3,000	3,00
386	ClariVest Asset Management LLC	0	0	.0	0	0	0	9	2,002	
387	Clark Capital Management Group, Inc.	3,500	3,500	3,557	0	0	0	3,500	3,500	3,50
388	Clean Yield Asset Management	1,900	0	0	0	1,700	1,700	1,700	0	1,70
389	Clear Harbor Asset Management, LLC	5,330	5,330	7,854	14,900	7,868	7,268	7,268	7,072	7,07
390	Clear Street Markets LLC	1,300	4,514	3,700	0	0	0	0	0	5,54
391	ClearArc Capital, Inc.	18,780	20,446	18,052	16,223	13,627	13,542	13,316	15,585	16,37
392	ClearBridge Investments, LLC	23,647,486	24,118,744	26,958,676	26,219,370	33,051,328	31,610,036	30,527,743	27,797,474	27,759,26
393	ClearBridge, LLC	Ò	0	0	0	0	0	.0	0	1,24
394	Clearstead Advisors LLC	0	0	0	0	0	0	0	4,900	4,80
395	Clifford Swan Investment Counselors	6,240	5,686	6,386	6,046	5,846	4,296	4,296	4,296	4,29
396	Clinton Group, Inc.	0	0	14,852	0	0	0	0	0	
397	Cloud Capital LLC	380	381	381	394	890	321	561	381	14
398	Clough Capital Partners, LP	Ò	0	375,600	389,800	276,600	319,900	258,300	0	
399	CLS Investments, LLC	a	0	6	17	0	0	8	0	
400	CNA Insurance Companies	75,000	75,000	104,780	101,200	94,080	94,080	87,860	87,860	87,86
401	Coastline Trust Company, N.A.	19,500	19,500	19,500	19,500	19,500	19,500	19,500	19,500	19,50
402	Cobult Capital Management, Inc.	0	0.	83,000	0	0	0	O	0	
403	Cobiz Wealth, LLC	52,542	52,727	48,434	23,409	47,183	54,748	64,076	62,556	68,33
404	Coeli Asset Management	0	0	0	0	0	Q	4,200	0	1,000
405	Cognios Capital, LLC	21,831	21,394	25,459	20,049	28,330	34,278	40,401	40,908	37,14

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		_		Quarter	ly Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
406	Cohen & Steers Capital Management, Inc.	183,163	254,363	231,463	268,063	88,637	270,437	515,372	799,938	813,927
407	Colrain Capital LLC	131,191	145,941	140,950	139,050	133,778	126,778	105,403	98.778	62,522
408	Columbia Pacific Wealth Management	0	3,030	a	0	0	0	0	0	(
409	Columbia Threadneedle Investments (UK)	1,722,716	1,747,366	1,649,800	2,544,006	0	0	0	0	
410	Columbia Threadneedle Investments (US)	3,297,288	3,108,751	3,025.041	2,176,944	2,468,091	2,621,917	2,679,620	2,444,153	2,858,99
411	Columbia Wanger Asset Management, LLC	0	29,000	29,000	70,000	46,200	41,840	41,840	31,540	
412	Comerica, Inc.	6,630	6,427	7,588	7,218	6,272	4,405	5,321	5,524	5,36
413	Commerzbank AG	268,699	129,834	150.441	233,630	245,093	290,347	283,808	310,483	326,20
414	Commonwealth Bank of Australia	297,614	289.692	283,149	45,460	39,470	41,604	46,604	50,724	45,26
415	Commonwealth Financial Network	24,872	28,340	32,095	27,490	28,671	26,468	24,440	25,078	25,12
416	Community Bank of Raymore	3,360	3,360	3,360	0	O	0	3,360	3,360	3,36
417	Community Bank System, Inc.	600	600	600	600	600	600	0	0	(100)
418	Community Bank, N.A.	600	600	600	830	830	767	767	267	10
419	Community Financial Services Group, LLC	58	0	0	0	0	0	0	0	
420	Community Trust and Investment Company	0	0	0	0	0	0	0	109,357	116,16
421	Compagnie Lombard, Odier SCA	27,597	18,682	18,782	42,958	54,300	47,600	42,600	42,600	28,90
422	Compass Efficient Model Portfolios, LLC	0	0	0	0	0	6,514	6,586	7,060	6,76
423	Compton Capital Management, Inc.	4,920	4,820	4,820	4.270	0	4,150	4,225	3,150	
424	Concept Asset Management	30	30	30	230	D	0	0	0	
425	Concert Wealth Management Inc.	9,440	10,471	10,502	5,325	5,079	5,387	5,119	5,289	5,24
426	Conning, Inc.	22,841	22,731	21,371	20,771	20,891	21,011	21,601	22,051	21,91
427	Connor, Clark & Lunn Investment Management Ltd.	243,100	30,500	0	0	0	0	Ó	0	
428	Conners Investor Services, Inc.	3,200	0	0	0	3,200	0	3,200	0	
429	Conventum Asset Management S.A.	50,000	0	0	0	0	0	0	0	
430	Convergent Wealth Advisors	0	0	0	2,230	2,007	1,904	1,900	1,900	1,90
431	Copeland Capital Management, LLC	8,000	8,000	8,000	8,000	8,000	8,000	5,000	5,000	5,00
432	Corbenic Partners, LLC	0	0	0	0	0	0	255	255	25
433	CoreCommodity Management, LLC	494	Ď.	494	494	494	494	494	494	49
434	Cornerstone Advisors, Inc. (NC)	0	0	0	0	0	0	3,500	3,500	3,50
435	Cornerstone Advisors, Inc. (WA)	306	306	273	122	156	156	156	253	25
436	Cornerstone Capital Management Holdings LLC	144,383	151,268	153,557	153,939	150,309	151,131	129,721	118,243	277,70
437	Cornerstone Capital Management LLC	772,729	913,848	1,078,103	1,228,921	1,525,460	1,273,044	364,583	364,583	364,58
438	Corvex Management LP	0	0	1,970,233	0	0	0	0	0	1140
439	Courier Capital, LLC	11,982	11,982	11,982	11,832	11,757	11,757	11,757	11,657	11,55
440	Covéa Finance S.A.S.	16,760	16,760	16,760	112,010	112,010	102,000	102,000	102,000	102,00
441	Covington Capital Management	15,550	14,700	12,225	8,953	8,850	8,725	12,250	45,845	68.24
442	CPP Investment Board	995,761	1,090,461	681,461	368,461	172,661	90,189	92,110	119,417	347,71
443	CPR Asset Management	65,520	50,720	19,983	22,383	22,483	26,683	49,420	49,420	49,42
444	CQS Cayman LP	29,900	15,100	0	40,000	20,000	20,000	20,000	5,970	40,46
445	Cramer Rosenthal McGlynn, LLC	250,320	621,655	478,720	0.000	0,000	107,545	110,295	144,495	178,12
446	Creative Financial Designs, Inc.	0	021,033	0	0	0	0 0	0	41	3
447	Creative Financial Group Ltd.	1,130	1,134	1,176	1,080	1,081	1,082	1,046	1,046	1.04
448	Creative Planning, Inc.	20,783	21,892	25,114	21,837	37,829	58,885	59,897	57,434	47.03
449	Credit Suisse Asset Management	1,110,230	1,025,491	1,054,267	594,285	708,896	507,381	498,855	540,369	563,76
450	Credit Suisse Asset Management, LLC (US)	0	0	1,054,207	0	708,850	0	498,833	22,310	13,37

		_		Quarter	ly Share Own	ership for Rej	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
451	Credit Suisse International	109,089	131,689	162,797	131,181	73,058	29,013	4,253	72,549	142,335
452	Credit Suisse Securities (Europe) Limited	6,308	6,089	15,168	31,459	12,435	5,624	4,701	18	1,29
453	Credit Suisse Securities (USA) LLC	2,814,150	2,369,309	2,306,814	2,149,918	1,455,258	361,628	528,088	280,137	218.39
454	Crestline Investors, Inc.	Ó	0	0	0	0	0	21,860	0	ie impe
455	Crestwood Advisors Group LLC	0	2,900	0	0	0	0	0	0	7
456	Cribstone Capital Management, LLC	0	0	0	0	0	450	450	450	45
457	Crossmark Global Investments, Inc	47,425	49,466	49,326	50,639	144,308	199,993	49,979	191,957	51,30
458	Crosspoint Capital Strategies, LLC	0	0.	0	68	0	0	0	0	-11-4
459	Cruz del Sur Administradora General de Fondos S A.	0	0	1,677	1,677	1,677	1,677	1,677	1,677	1,67
460	CSS, LLC	0	0	9,100	16.178	37,100	2,499	24,699	29,912	17,86
461	CTC myCFO, LLC	0	0	0	20,435	22,741	9,725	9,642	9,977	10,02
462	Cubic Asset Management, LLC	0	0	0	4,650	4,650	4,650	4,000	4,000	4,00
463	Cubist Systematic Strategies, LLC	30,656	35,797	52,479	25,596	37,553	32,176	12,966	19,641	41,35
464	Cullman Associates, Inc.	4,030	4,030	4,030	25,550	0	0	0	0	41,00
465	Curian Capital, LLC	90,448	151,351	109,528	37,630	0	0	0	0	
466	Cushing Asset Management, LP	78,900	78,200	78,300	79,253	41,300	43,300	46,300	42,800	42,80
467	Cutler Group, LP	0.900	78,200	0	27,744	4,329	14,650	7,479	16,853	4,09
468	Cypress Asset Management, Inc.	73,332			70,480					
469	Cypress Capital Management, LLC (WY)	4,829	72,127 4,829	72,840		68,592	33,572	31,254	34,052	34,90
470				4,724	4,724	1,264	and the second of			
471	D. E. Shaw & Co., L.P.	2,276,970	1,311,424	1,590,578	2,415,092	4,387,866	4,331,466	3,315,091	3,359,268	4,360,73
472	D. F. Dent & Company, Inc.	5,300	5,300	5,300	0	0	0	0	0	27.00
	D.A. Davidson & Co.	54,548	56,873	58,897	60,988	97,838	98,091	100,724	98,480	94,73
473	Dacheng Fund Management Co., Ltd.	442	229	229	285	285	285	285	816	8.1
474	Daiwa Asset Management (Singapore) Ltd	0	0	0	0	0	()	0	586	58
475	Daiwa Asset Management Co., Ltd.	106,380	157,639	280,410	291,980	89,119	56,089	43,070	64,480	15,60
476	Daiwa SB Investments Ltd.	11,959	0	0	0	0	0	0	0	
477	Dalton, Greiner, Hartman, Maher & Co., LLC	2,750	0	0	0	0	0	0	0	
478	Dana Investment Advisors, Inc.	0	a	.0	0	0	0	0	0	33,23
479	Danske Bank	4,375	6,075	6,475	5,575	5,675	5,675	5,675	5,675	5,67
480	Danske Capital	5,161	50,741	46,833	45,510	119,097	20,596	28,190	29,397	21,44
481	Davenport Asset Management	2,669	O	Q	0	0	0	0	0	
482	Davidson Kempner Capital Management LP	0	0	0	150,000	150,000	150,000	150,000	150,000	150,00
483	Davis Selected Advisers, L.P.	80	80	40	55,040	55,040	55,035	50	95	.8
484	Day Hagan Asset Management	0	0	600	0	600	0	.0	0	
485	DB Platinum Advisors	162,432	162,432	162,432	11,873	12,168	12,168	13,413	13,056	13,31
486	Dearborn Partners L.L.C.	10,421	10,159	10,053	9,883	9,733	7,825	7,515	7,065	7,03
487	Decade Capital Management LLC	58,542	0	0	0	0	0	0	0	
488	Deere & Company	35,099	35,075	32,417	31,911	34,304	33,588	38,217	38,217	38,21
489	Degroof Petercam Asset Management	14,989	14,989	14,989	14,989	16,523	16,523	16,523	19,323	19,32
490	Deimos Asset Management LLC	0	0	0	15,000	0	0	0	0	
491	Deka Investment GmbH	102,343	232,981	231,308	170,610	171,301	265,589	263,396	385,515	276,08
492	DekaBank Deutsche Girozentrale	165,020	150,886	157,398	108,202	97,525	280,534	421,750	481,164	209,31
493	Delphi Fondene	0	0	0	0	0	148,000	148,000	132,000	51,00
494	Delphi Private Advisors, LLC	0	0	0	24	14	14	8	8	
495	Delta Asset Management, LLC	377	377	377	212	212	212	212	212	21

				Quarter	v Share Own	ership for Rep	oorting Institu	tions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Maj-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
496	Delta Lloyd Asset Management N.V	23,457	35,055	38,990	38,990	31,982	31,982	37,973	0	0
497	Deltec Asset Management, LLC	153,160	153,160	153,466	160,966	160,660	160,660	160,660	160,660	159,860
498	DePrince, Race & Zollo, Inc.	0	Ō	. 0	4,369	0	0	0	0	(
499	Deutsche Asset Management Americas	1,965,182	2,800,911	3,350,085	3,028,731	2,716,403	1,558,303	1,328,499	924,030	1,782,520
500	Dentsche Bank (Suisse) SA	12,780	16,207	30,466	29.218	9,536	8,087	6,295	6,295	6,29
501	Denische Bank AG (Germany)	8,046	1,340	1,089	1,278	2,842	1,503	2,075	0	-(
502	Deutsche Bank Securities Inc.	350,640	310,189	82,345	113,784	1,965,066	328,648	206,422	582,012	126,828
503	Deutsche Wealth Management, S.G.I.I.C., S.A.	0	0	O	0	2,003	0	D	0	(
504	DFT Energy LP	0	0	0	0	0	0	0	200,000	200,000
505	DG Capital Management, Inc.	19,916	22,256	0	0	4,655	0	Ō	0	C
506	Diamond Hill Capital Management Inc.	Ó	112	120	130	0	135	130	4,681	4,624
507	Dimensional Fund Advisors, L.P.	5,563,716	5,510,342	4,427,809	4,251,524	3,295,872	3,242,726	3,251,721	2,683,465	2,512,261
508	Dimensional Fund Advisors, Ltd.	58,197	42,915	39,222	41,698	41,289	41,889	46,689	50,066	49,175
509	Dimpel Jacqueline A	8,835	8,835	8,835	0	0	0	0	0	
510	Discovery Capital Management, LLC	0	0	0	0	0	0	0	63,900	0
511	DJE Kapital AG	5,000	5.000	1,300	0	0	0	0	2,700	0
512	DNB Asset Management AB	411,994	411,994	43,828	50,619	18,202	18,202	18,902	15,802	12,502
513	DNB Asset Management AS	462,379	506,045	461,646	928,751	1,822,507	1,973,297	1,899,497	1,770,597	1,906,897
514	Dodge & Cox	10,924	9,884	9,884	8,884	8,424	9,212,463	22,936,298	22,896,996	22.828,608
515	D'Orazio & Associates, Inc.	116	116	116	116	116	116	116	116	116
516	Douglas C. Lanc & Associates	3,957	3,940	4,419	4,445	4,645	4,828	4,340	3,340	3,340
517	Douglass Winthrop Advisors, LLC	12,848	12,848	12,720	10,223	9,423	8,623	8,623	8,623	8,623
518	Dowling & Yahnke, LLC	37,609	38,366	36,413	29,045	29,412	29,853	30,766	29,905	32,221
519	Dreman Value Management, L.L.C.	19,312	2,650	2,650	2,650	2,650	2,650	1,905	0	17,082
520	DSAM Partners (London) Ltd	0	0	0	0	0	0	244,981	368,831	0
521	DSM Pension Services B.V.	30,000	0	0	0	0	0.	0	0	0
522	Dubuque Bank and Trust Company	154	154	154	.296	0	0	200	200	200
523	Duemme International Luxembourg S.A.	0	Ö	5,807	4,705	6,227	3,705	3,705	3,705	1,809
524	Duff & Phelps Investment Management Company	9,150	9,150	8,680	8,290	8,170	0	0	0	0
525	Dunas Capital Asset Management SGIIC SA	2,260	2,260	2,363	2,363	0	0	0	0	0
526	Duncker, Street & Co., L.L.C.	7,300	3,500	3,500	3,500	1,700	1,700	1,700	1,700	1,700
527	DWS Far Eastern Investments Limited	5,219	5,219	5,219	5,449	5,449	9,769	9,769	9,699	9,699
528	DWS Investment GmbH	219,956	235,749	341,351	462,326	363,570	384,102	377,864	285,965	477,137
529	DWS Investment Management Americas, Inc.	456,968	746,408	774.268	764,743	741,364	523,799	562,062	128,246	99,859
530	DWS Investments UK Limited	0	0	0	0	455	0	0	0	,,,,,,,,
531	Dynamic Capital Management LLC	0	0	35,382	16,295	13,599	57,472	0	183,853	29,019
532	Dynamic Technology Lab Pte. Ltd.	3,536	3,300	21,912	6,277	10,099	0	0	0	12,251
533	DZ Bank AG Deutsche Zentral-Genossenschaftsbank	0,000	0	0	0,277	0	0	0	1,854,031	1,791,268
534	E&G Advisors, LP	9.296	9,596	10,196	13,146	16,246	16,656	20,617	18,317	18,317
535	E*TRADE Capital Management LLC	0	0	0	0.	0	3,975	6,668	10,946	16,940
536	E.Öhman J:or Fonder AB	2,700	39,340	11,500	54,329	54,329	54,329	50,138	46,066	41,386
537	Eads & Heald Wealth Management	12,172	10.682	10,217	7,907	5,642	5,222	4,982	4,932	5,26
538	Eagle Asset Management, Inc.	0	0.082	0,217	0	0,042	0	0	17,494	5,20
539	Eagle Capital Management L.L.C.	3,128,147	2,927,796	2,980,574	3,307,897	3,730,469	3,908,258	3,671,422	3,479,799	3,464,640
540	Eagle Global Advisors, LLC	10,187	9,652	9,527	9,327	9,327	9,327	9,327	9,327	9,327

				Quarter	v Share Own	ership for Rep	orting Institu	tions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
541	EagleClaw Capital Management, LLC	3,650	3,650	3,650	9,825	9,825	10,575	14,000	14,000	14,250
542	EARNEST Partners, LLC	30,960	36,660	36,660	36,660	67,680	42,280	42,280	39,497	38,785
543	Earth Resource Investment Group	4.600	4,600	4,600	5,900	0	16,000	5,700	15,500	(
544	Enton Vance Management	2,420,547	2,785,701	2,851,840	2,285,556	1,701,801	2,453,522	2,501,748	3,672,001	2,754,19
545	Eddystone Capital LLC	1,100	1,100	1,100	1,100	0	0	0	0	
546	Edge Capital Partners, LLC	0	0	D	0	0	0	.0	831	687
547	Edge Wealth Management LLC	53	34	34	34	0	0	0	1,273	1,27
548	Edmond de Rothschild (Suisse) S.A.	O	0	0	0	8,568	0	0	0	(
549	Edmond de Rothschild Asset Management (France) S.A.	0	31,500	30,500	31,400	165,068	808,500	909,000	814,000	837,600
550	Edward Jones Trust Company	0	.0	0	0	0	.0.	4,014	3,356	(
551	EIC Partners AG	0	0	0	0	0	2,800	0	0	
552	EJF Capital LLC	0	10.000	0	0	13,907	13,907	0	0	C
553	ELCO Management Company, LLC	0	0	0	0	0	0	52,850	25,050	25,100
554	Element Capital Management, LLC	0	700	0	0	0	0	0	0	(
555	Elkhorn Investments, LLC	0	0	0	0	0	0	0	15,792	
556	Ellington Management Group, L.L.C.	0	0	0	0	0	0	23,400	0	10,000
557	Elliott Management Corporation	4,253,326	2,697,912	1,084,000	0	0	0	0	0	(
558	Emerald Advisers LLC	0	0	0	0	0	16,142	11,984	26,508	(
559	Employees Retirement System of Texas	239,200	239,200	203,200	187,300	187,300	185,300	185,300	185,300	185,300
560	Encompass Capital Advisors, LLC	0	0	Ó	0	0	577,035	654,963	740,000	0
561	Endex Capital Management, LLC	624	624	624	0	0	0	0	0	
562	Endurance Wealth Management, Inc.	50,656	50,656	52,156	44,858	44,318	45,181	47,181	52,216	51,291
563	Energy Opportunities Capital Management, LLC	98,635	101,035	95,135	84,710	84,310	83,425	81,575	81,925	79,875
564	Engineers Gate Manager, L.P.	12,710	40,528	11,196	179,369	115,485	31,539	0	0	0
565	ENISO Pariners AG	4,050	4,050	4,050	1,064	1,064	1,064	1,064	1,064	1,064
566	Ensemble Capital Management, LLC	104,265	99,485	48,605	41,255	47,210	26,110	0	7,900	8,500
567	Enterprise Financial Services Corp.	433	341	472	362	480	513	586	586	562
568	Envestnet Asset Management, Inc.	91.026	95,509	104,908	91,114	106,077	117,818	83,843	92,489	88,641
569	Epoch Investment Partners, Inc.	2,680,442	4,974,812	6,672,189	6,786,639	2,491,037	1,955,411	1,871,575	2,340,590	2,231,283
570	EquityCompass Investment Management, LLC	0	0	61,711	0	0	0	0	0	(
571	ERSEL Gestion Internationale S.A.	8,200	0	0	0	0	0	0.	0	(
572	ERSTE-SPARINVEST Kapitalanlagegesellschaft mbH	13,787	10,000	10,000	10,000	0	7,000	Ó	6,000	1
573	Essex Financial Services, Inc.	5,473	5,291	5,341	Ó	0	0	0	D	(
574	Essex Investment Management Company, LLC	36,236	36,257	36,625	37,021	37,292	91,287	110,043	110,876	77,010
575	Estabrook Capital Management, L.L.C. (Grove Creek)	1,313	1,313	1,232	1,182	1,182	1,182	1,182	1,182	1,182
576	ETF Securities Advisors LLC	54	154	182	75	75	90	90	90	90
577	Eubel Brady & Suttman Asset Management, Inc.	4,268	4,385	5,351	4,701	5,779	5,524	5,524	5,314	5,145
578	Euclid Advisors LLC	398,450	0	0	0	0	8,380	0.	0	9,11,5
579	EULAV Asset Management	0	0	Ġ	0	0	0	0	66,000	72,000
580	Eurizon Capital S.A.	70,473	70,493	70,493	100	100	100	100	28,207	24,76
581	Eurizon Capital SGR S.p.A.	90,467	90,467	90,467	0	0	335,249	335,249	448,158	418,13
582	Euromobiliare Asset Management SGR S.p.A.	2,000	2,000	2,000	0	0	0	0	0	4(9,12
583	Evercore Wealth Management, LLC	14,360	14,360	13,710	11,310	10,836	9,938	9,938	9,819	9,62
584	Everence Capital Management, Inc.	7,836	11,046	11,046	0	0.050	9,936	9,556	2,019	3,02
- 137	Exercise Suprial Management, me.	7,030	125,000	11,090	0	U	· U	U		

				Quarter	v Share Own	ership for Rej	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
586	Evli Fund Management Company Ltd.	0	0	0	0	0	0	2,020	2,912	3,709
587	Exane Asset Management	0	0	0	0	0	42,477	41,211	32,995	37,436
588	Exane Derivatives	20,180	7,457	3,413	0	19,750	20,055	17,971	4.920	5,94
589	Exchange Capital Management Inc.	Q	Q	0	0	0	100	100	100	10
590	Exchange Traded Concepts, LLC	60	0	0	0	0	0	0	0	
591	ExxonMobil Investment Management, Inc.	121,841	112,761	116,619	113,896	123,792	132,124	139,338	129,367	124,13
592	F&C Netherlands B.V.	1,916	1,916	0	0	0	0	0	0	
593	Factory Mutual Insurance Company	Ò	0	O	0	589,000	469,000	801,000	703,000	713,00
594	FAI Wealth Management	100	100	100	0.	0	0	0	0	
595	Fayez Sarofim & Co.	8,856	7,856	7,856	7,762	7,075	7,151	7,001	7,001	3,80
596	FCI Advisors	4,746	4,321	4,371	5,203	0	0	0	0	
597	FDO Partners, LLC	0	0	0	13,744	0	8,393	0	0	21,62
598	FDX Advisors, Inc.	14,100	13,109	14,746	18,004	5,756	0	4,056	16,783	18,31
599	Federaled Equity Management Company of Pennsylvania	15,508	12,205	11,294	8,738	8,458	12,104	16,655	459,708	142,64
600	Federated Global Investment Management Corp.	0	0	0	0	0	0.	0	0	15,85
601	Federated Investment Counseling	56.972	56,972	0	0	0	0	0	1,117	12,33
602	Federated Investment Management Company	0	0	11,294	8,738	8,738	8,738	8,738	8,738	15,85
603	Fédéris Gestion d'Actifs	0	17,000	0	0,730	0,738	0,730	0	0,730	15,05
604	Feltz WealthPLAN, Inc.	1,581	1,481	1,481	3,372	3,372	2,250	2,258	2,258	15
605	Ferguson Wellman Capital Management, Inc.	5,839	5,789	6,218	5,789	0.572	4,229	4,229	4,629	4,22
606	FIC Capital, Inc.	59,381	59,541	62,106	44,398	42,585	49,580	52,810	51,732	52,43
607	Fidelity Institutional Asset Management	178,251	138,747				7 4 6 4 7			1,108,55
608	Fidelity International	1,514,434	1,468,845	131,479	115,116	1,236,531	784,052	706,929	1,077,525	
609	Fidelity Investments Canada ULC	15,998		1,556,219	1,498,268	1,087,601	752,109	353,847	314,416	293,54
610	Fidelity Management & Research Company		25,649	21,573	8,712	12,467	18,199	27,755	9,296	9,88
611	Fideuram Asset Management (Ireland) dac	18,164,749	20,129,733	17,913,307	16,783,760	24,175,708	25,448,041	31,333,950	34,214,017	33,338,99
		27,698	43,132	21,601	32,920	40,017	39,627	41,238	38,908	37,15
612	Fideuram Investimenti SGR S.p.A.	18,316	33,988	0	0	0	0	0	0	
613	Fiduciary Asset Management, LLC	122,560	122,560	122,560	122,560	0	0	0	0	19.66
614	Fiduciary Trust Company	28,982	28,315	26,753	20.595	20,274	19,504	19,120	18,385	17,98
615	Fieldpoint Private Bank & Trust	0	0	0	0	0	0	.0	0	2,50
616	Fiera Capital Corporation	0	4,130	4,374	5,246	0	4,633	4,000	4.140	7,10
617	Fiera Capital Inc.	5,130	5.130	0	0	0	0	0	0	
618	FIL Investment Management (Hong Kong) Limited	7,118	7,118	7,118	0	0	0	Q	0	
619	Financial Architects Inc.	1,084	1,034	0	0	1,045	1,995	1,895	1,740	2,29
620	FineMark National Bank & Trust	2,720	2,512	1,676	2,255	636	636	336	2,136	
621	FinEx Capital Management LLP	189	188	190	191	193	195	214	214	21
622	Fir Tree Partners	100,000	100,000	100,000	100,000	0	0	0	0	
623	First Allied Asset Management, Inc.	13,545	13,601	12,403	11,157	14,920	16,811	12,276	14,683	12,83
624	First American Bank	75,252	76,502	14,668	30,608	21,095	17,200	17,200	17,240	17.24
625	First Asset Investment Management, Inc.	0	0	0	0	0	19,423	22,430	23,075	23,54
626	Pirst City Capital Management, Inc.	210	210	250	250	1,140	0	0	0	
627	First Command Bank	0	0	0	.0	0	0	0	153	
628	First Command Financial Services, Inc.	0	0	0	0	0	0	0	153	
629	First Financial Corp	950	875	790	890	890	475	165	165	10
630	First Horizon Advisors, Inc.	6,227	6,508	6.780	2,428	3,245	7,505	6,480	6,480	5.77

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				Quarter	v Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
631	Pirst Interstate Bank	0	0	2,790	310	160	160	160	160	16
632	First Manhattan Company	16,219	16,219	16,219	22,378	20,680	20,680	21,045	20,845	21,67
633	First Niagara Private Client Services	2,752	0	0	0	0	0	0	0	
634	First Quadrant L.P.	0	0	0	0	77,500	77,500	0	0	
635	First Republic Investment Management, Inc.	47,830	49,143	52,028	92,181	55,322	78,476	97,324	78,397	94.29
636	First Sentier Investors Global Resources	113,101	97,162	97,162	9,900	9,900	0	0	0	
637	First State Investments (U.K.) Ltd	0	0	0	0	0	0	0	0	7
638	First Trust Advisors L.P.	138,445	136,997	94,949	124,274	259,595	283,569	300,202	225,967	206,49
639	First Washington Corporation	0	0	0	60,640	60,640	60.940	60,790	60,790	37,79
640	FirstMerit Bank, N.A.	3,572	3,065	0	0.	0	U	0	0	
641	Fischer Francis Trees & Watts, Inc.	O	0	0	53,474	61,472	64,149	65,224	61,517	61,05
642	Fisher Investments	10,587	10.512	15.747	9,887	8,886	6,804	6,042	5,717	-
643	Fjärde AP-Fonden	113,342	106,835	99,643	84,997	99,968	98,011	111,551	99.135	91,18
644	Flagship Asset Management (Pty) Limited	0	0	0	0	0	0	0	0	30
	Flinton Capital Management LLC	0	0	0	0	0	0	0	11,492	14,51
	Florida State Board of Administration	669,880	658,392	655,874	642,493	622,503	758,143	765,541	817,456	821,05
	Flow Traders U.S. LLC	26	0	0	0	0	0	0	0	
	FNY Investment Advisers LLC	0	0	0	0	0	0	0	9,840	10
	Focused Wealth Management, Inc.	407	407	254	254	254	254	254	254	10
	Folger Hill Asset Management LLC	0	0	0	0	145,352	67,000	20,000	107,801	
	Folger Nolan Fleming Douglas Capital Management, Inc. (CMI	80	4.409	4,769	5,399	6,139	6,349	6,349	6,349	7,74
	Fondstinans Kapitalforvallning AS	2,200	2,200	2,800	2,400	2,400	2,400	2,400	3,000	3,000
	Fondsforvaltning A/S	2,840	2,840	2,840	2,840	2,840	2,840	2,840	2,150	1,63
	Foresters Asset Management Inc	9,500	0	0	0	0	0	0	3,000	9,10
	Foresters Investment Management Company, Inc.	212,275	212,275	212,275	212,275	212,275	214,850	214,850	214,850	214,85
	Formidable Asset Management, LLC	129	129	129	189	189	0	0	0	214,02
	Founders Capital Management, Inc.	0	0	0	0	0	0	0	0	5
	FOURPOINTS Investment Managers, S.A.S.	.0	0	36,000	36,000	33,100	33,100	29,400	28,600	26,90
	Fox Run Management, L.L.C	0	0	0,000	0,000	0	33,100	12,900	26,000	14,90
	Franklin Advisers, Inc.		7,075,507		The second second					6,630,41
	Franklin Equity Group	8,726,663 933,857	944,480	4,332,916 917,521	5,986,301 658,083	11,941,018 459,328	10,979,679 443,850	10,264,978	10,880,711	333,66
	Franklin Mutual Advisers, LLC	3,143,060	3,147,400					404,009	357,243	00,000
	Franklin Templeton Investments Corporation	16,560		3,068,580	2,156,394	2,147,975	2,098,055			
	Franklin, Parlapiano, Turner & Welch, LLC	10,300	24,620	24,620	39,330	39,330	39,330	61,130	55,760	59,08
		The state of the s		2,085	2,085	2,085	2,085	2,085	2,085	2,08
	Fred Alger Management, Inc.	2,477,172	2,154,893	1,252,637	1,998,202	882,140	1,610,353	2,026,642	2,980,820	2,926,19
	Freestone Capital Management, LLC	5,304	4,617	3,624	0	0	0	0	0	
	Front Street Capital, Inc.	20,000	20,000	20,000	20,000	20,000	22,685	18,285	18,915	20,38
	Frontier Investment Management Co	0	0	0	0	30,739	33,839	33,939	33,833	43,89
	Fronticr Wealth Management LLC	0	16,944	21,377	18,513	13,389	8,844	11,268	10,328	11,00
	Frost Investment Advisors, LLC	109,474	115,250	108,130	35,639	27,274	24,947	21,723	18,291	12,73
	Fruth Investment Management, Inc.	4,650	4,650	4,650	4,650	4,650	4,650	5,332	5,388	5,38
	FSC Securities Corporation	767	767	767	767	767	767	0	0	
	FT Options LLC	0	0	0	0	0	0	0	0	12,00
	FTC Capital GmbH	1,794	0	0	0	0	0	0	0	
675	Fuh Hwa Securities Investment Trust Co., Ltd.	0	0	0	6,245	6,245	8,119	8,119	18,103	18,10

	Investor Name	Quarterly Share Ownership for Reporting Institutions										
#		31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17		
676	Fukoku Mutual Life Insurance Co.	2,480	2,480	1,980	1,980	1,980	1,780	1,780	1,980	2,980		
677	Fuller & Thaler Asset Management Inc.	3,800	0	0	0	0	Ø	O	0	(
678	Fulton Financial Advisors, N.A.	9,561	9,561	9,461	0	0	.0	0	0			
679	FundLogic SAS	0	0	0	190,000	0	.0	0	0			
680	Fusion Family Wealth LLC	ū	0	0	0.	0	0	0	2,367	3		
681	FutureAdvisor	0	0	0	0	0	0	64	64	6		
682	Gabelli Funds, LLC	1,044,800	1,010,000	973,600	979,400	712,500	704,150	778,271	784,871	748,87		
683	Galaxy Capital Trading Ltd	4,500	4,500	4,500	0	0	0	0	0			
684	GAM International Management Ltd.	1,400	800	800	800	0	.0	0	0			
685	GAM Investment Management (Switzerland) AG	81,808	76,522	74,378	74,564	77,331	78,320	98,201	98,201	97.48		
686	Garrison Asset Management, LLC	33,953	33,717	34,011	30,983	35,175	39,322	40,328	40,509	41,809		
687	Gateway Investment Advisers, LLC	65,501	64,133	60,070	58,387	40,386	39,630	39,334	41,489	38,725		
688	GE Asset Management Inc.	767,652	752,080	748,175	806,237	806,237	806,237	806,237	0	1		
689	Gemmer Asset Management LLC	399	399	389	257	180	180	180	180	180		
690	General American Investors Company, Inc.	185,000	210,000	210,000	218.000	218,000	218,000	113,000	113,000	113,000		
691	General Electric Co	0	0	748,175	806,237	66,500	0	0	0			
692	Generali Insurance Assel Management S.p.A. SGR	9,479	10,449	10,955	10,955	10,510	10,510	9,540	9,540	9,360		
693	Generali Investments CEE, a.s.	10,180	10,180	2,700	2,700	3,900	3,918	3,903	0			
694	Genesee Valley Trust Co	4,401	4,146	0	4,637	0	0	0	0			
695	Genovese Burford & Brothers Wealth And Retirement Plan Mg	0	0	0	615	615	615	512	512	51		
696	Geode Capital Management, L.L.C.	4,045,921	4,069,915	4,103,532	4,091,119	4,027,355	4,000,632	4,474,460	4,797,927	5,192,07		
697	George Kaiser Family Foundation	1,401,814	1,026,559	0	0	0	0	0	0	1		
698	George V Asset Management	0	0	0	0	0	1,000	1,000	1,000	1,000		
699	Geosphere Capital Management, LLC	0	0	0	0	76,000	0	0	0	.,,,,,,		
700	Gerald L. Ray & Associates, Ltd.	7,685	7,685	7,285	7,185	5,685	5,685	5,685	5,685	5.68		
701	Gesturis Asset Management S.G.L.C., S.A.	0	0	0	0	0	0	0	0	1,00		
702	GFO Advisory Services, LLC	0	0	0	0	0	0	0	0	70,00		
703	GHP Investment Advisors Inc	3,446	3,596	5,047	4,724	4,724	4,724	4,371	4,264	4,26		
704	Gies & Heimburger GmbH	0.440	5.700	0	0	0	0	0	0	4,20		
705	Gillespie, Robinson & Grimm, Inc.	53,794	58,624	52,219	29,365	29,815	33,070	28,935	22,915	25,44		
706	Giovine Capital Group LLC	77,695	73,215	70,985	27,505	0	0	0	0	20,77		
707	Glassman Wealth Services LLC	0	75,215	0	0	0	0	8	322	1		
708	Glenmede Investment Management LP	144,361	147,180	131,732	296,698	278,519	260,466	260,099	449,845	833,38		
709	Glens Falls National Bank & Trust Company	430	130	131,732	230,030	2/0,5/9	0	0	449,045	05,50		
710	GLG Inc.	430	0	0 0	0	0	3,701	3,701	3,701	3,70		
711	GLG LLC			422,565	133,331	112,477	43,080	18,432	19,683	19,639		
712	GLG Partners LP	434,427	423,589	422,303	20 A A A A A A A A A A A A A A A A A A A		43,080	0	61,493			
713		61,056	24,132	0	47,055	54,409	0	0	0 0	215,26		
714	Global Index Advisors, Inc.	16,358	15,363	0	0	0	0		-350	19		
	Global Retirement Partners, LLC	0						0	282			
715	Global X Management Company LLC	0	735	26	26	258	677	1,914	2,608	3,32		
716	GM Asset Management	9,818	0	0	0	0	0	0	0			
717	GNB Gestão de Ativos	11,092	11,092	11,092	11,092	11,092	11,092	11,092	11,092			
718	GO ETF Solutions LLP	6,220	6,220	0	0	0	0	0	0	124		
		The state of the s	the same of the sa							4,02:		
719 720	Godshalk Welsh Capital Management, Inc. Golden Capital Management, L.L.C.	4,850 126,512	4,550 123,885	4,675 121,138	4,375 107,692	4,625 67,260	4,475 67,138		4,275 89,492			

	Investor Name	Quarterly Share Ownership for Reporting Institutions										
#		31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17		
721	Goldman Sachs & Company, Inc.	1,166,791	883,664	910,252	3,817,898	4,125,117	3,565,121	3,605,695	3,798,216	2,803,670		
722	Goldman Sachs Asset Management (US)	2,815,693	1,589,670	877,086	809,511	3,349,973	3,769,382	1,649,996	1,418,693	1,455,214		
723	Goldman Sachs Asset Management International	60,051	50,032	43,100	60,529	59,500	160,337	62,849	45,249	45,82		
724	Goldman Sachs Bank AG	D	0	0	17,046	14,762	12,806	11,400	11,645	12,35		
735	Goldman Sachs International	3,502	0	5,017	18,397	0	0	0	4,033			
726	Good Harbor Financial, LLC	0	0	180	389	249	252	238	336	360		
727	Gotham Asset Management, LLC	0	.0	0	0	0	.0	1,068	39,961			
728	Gradient Investments LLC	.0	0	1	Ω	0	0	0	3	100		
729	Graham Capital Management, L.P.	0	0	0	0	165,000	0	404,701	0	64,800		
730	Grandfield & Dodd, LLC	8,657	8,803	8,803	8,683	8,683	8,683	5,911	5,911	5,91		
731	Granite Investment Partners, LLC	8,600	8,600	8,600	8,600	8,600	8,600	8,600	6,800	6,800		
732	Grantham Mayo Van Otterloo & Co LLC	0	0	0	0	0	0	0	0	300		
733	Grassi Investment Management, L.L.C.	12,375	12,825	13,725	16,300	23,350	24,375	25,175	22,300	22,22		
734	Graticule Asia Macro Advisors LLC	0	0	0	138,083	0	60,000	240,000	127,500	(
735	Gratus Capital LLC	0	0	0	0	0	11,000	9,350	9,350	9,350		
736	Great Lakes Advisors, LLC	10,156	10,156	10,156	10,156	10,156	10,156	25,039	24,051	23,693		
737	Green Arrow Capital Management LLC	40,733	0	0	0	0	0	0	0	(
738	Greenleaf Trust	0	0	0	0	0	0	4,355	4,355	4,189		
739	GRESHAM Banque Privée	0	734	1,234	1.234	1,234	1,234	1,234	1,234	1,234		
740	Griffin Asset Management, Inc.	3,000	3,000	0	0	0	0	0	0	(
741	Grossbötzl, Schmitz, Lomparski & Partner International S.a	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	1,700		
742	Grosvenor Capital Management, L.P.	0	0	0	0	0	0	252	1,152	780		
743	Ground Swell Capital, LLC	852	852	852	852	852	852	0	0			
744	Group One Trading, L.P.	895	264	1,980	9,728	57,196	36,908	47,806	44,209	9,40		
745	Groupama Asset Management	46,859	76,222	146,496	134,969	134,585	119,596	92,793	111,728	109,95		
746	Grove Bank & Trust	0	0	0	0	0	0	0	120	120		
747	GS&P Kapitalanlagegesellschaft S.A.	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500		
748	GSA Capital Partners LLP	5,382	55,615	37,464	35,865	0	0	15,358	22,796	38,70		
749	GSD Gestion S.A.	0	0	0	0	0	0	0	0	1,000		
750	Guardian Investor Services LLC	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,504	3,403		
751	Gnardian Life Insurance Company of America	2,215	2,225	2,970	2,411	1,880	1,906	1,906	2,141	2,150		
752	Guggenheim Investments	491,337	475.991	399,791	525,807	569,389	562,537	495,676	543,055	598,96		
753	Gulf International Bank (UK) Limited	144,380	144,650	146,650	150,130	150,130	150,130	168,534	168,704	171,00		
754	Gupta Wealth Management Lic	347	554	295	635	270	270	270	270	270		
755	Gustavia Fonder AB	0	0	0	0	0	0	0	5,300	.20		
756	GWL Investment Management Ltd	353,944	354,321	346,600	336,261	322,336	411,237	437,506	437.127	433,29		
757	H. M. Payson & Co.	28,032	27,352	25,866	24,996	26,323	24,336	23,766	23,242	22,200		
758	Hallmark Capital Management, Inc.	23,032	0	25,800	24,990	0	24,330	25,700	119	22,200		
759	Handelsbanken Asset Management	47,134	44,599	43,453	219,449	Ó	0	0	0			
760	Hanson & Doremus Investment Management, Inc.	150	0.	0	308	308	308	0	0			
761	HAP Trading, LLC	154,619	165,634	56.875	10,576	23,344	0	53,643	16,812	14,97		
762	Harbor Advisors LLC	134,019	0 0	20,073	0,376	23,344	0	33,043	0.1470-7	5,00		
763	Harel Insurance Investments and Financial Services Ltd		0		7			0	5,000			
764		0		0	0	0	500	1,50	0	4		
	Harfst and Associates, Inc	0	200	200	200	12.007.045	0	0	0	6 500 77		
765	Harris Associates L.P.	16,000	16,000	12,883,673	17,164,780	12,067,045	6,524,590	6,519,695	6,513,995	6,592		

#	Investor Name	Quarterly Share Ownership for Reporting Institutions									
		31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17	
766	Hartford Investment Management Company	122,649	125,773	126,889	123,079	123,511	121,413	131,405	134,835	125,81	
767	Harvard Management Company, Inc.	140,727	200,460	0	0	0	0	D	0		
768	Harvest Management, LLC	Q	4,300	0	0	0	O	0	0		
769	Harvest Portfolios Group Inc.	0	0	0	0	0	0	0	11,209	11,20	
770	Hatteras Funds, LP	27	27	27	27	27	27	27	0		
771	Hauck & Aufhänser Asset Management Services S.a r.l.	29,168	33,869	36,569	41.167	34,000	23,900	11,866	21,879	20,81	
772	Hauck & Aufhäuser Fund Services S.A.	5,000	5,000	7,000	7,000	15,000	15,000	15,000	15,000	15,00	
773	Hawkins Capital L.P.	Ü	0	0	0	0	0	9,000	9,000	9,00	
774	Hayman Capital Management, L.P.	9,202	172,335	0	0	0	0	0.	0		
775	HBK Investments, L.P.	517,190	170,400	227,300	0	0	0	10,723	276,571	883,01	
776	HBKS Wealth Advisors	0	0	0	0	0	0	3,267	3,259		
777	Helvetia Versicherungen	20,000	20,000	37,000	34,900	22,900	0	0	0		
778	Hemenway & Barnes LLP	9,113	5,993	0	0	0	O	a	0		
779	Hemenway Trust Company LLC	15,000	15,000	15,000	0	0	0	0	0		
780	Hennessy Advisors, Inc.	0	Ò	0	0	0	0.	130,600	Ó		
781	Herndon Capital Management, LLC	0	0	Ü	0	0	47	47	0		
782	Herring Creek Capital Management, LLC	0	195,439	0	0	0	0	0	0		
783	HFM Wealth Management	0	2,150	1,400	1,750	1.300	750	750	750	75	
784	High Point Bank & Trust Company	300	300	300	300	300	300	300	300	30	
785	Highbridge Capital Management, LLC	20,886	0	0	6,252	0	6,073	25,505	10,584	11,15	
786	Highfields Capital Management, L.P.	4,664,766	4,664,766	4,423,766	3,765,766	1.080,588	1,080,588	2,719,964	29,621		
787	Highland Capital Management, L.P.	813,475	405,450	302,307	97,282	0	0	0	0		
788	Highland Capital Management, LLC	0	16,114	16,004	19,679	0	0	0	0		
789	Highlander Capital Management, LLC	0	0	0	0	0	0	0	1,000		
790	HighMark Capital Management Inc.	33,538	30,719	30,553	26,183	14,346	13,530	12,477	12,118	9,68	
791	Highmount Capital LLC	6,590	6,590	6,590	6,590	6,590	6,590	6,590	6,590	6,59	
792	Highstreet Asset Management Inc.	0	0,090	0	0,290	0,390	0,090	0,390	3,400	3,40	
793	Hightower Advisors, LLC	22.525	0	33,427	40,919	50,993	32,393	59,738	45,182	48,10	
794	Hilltop Park Associates LLC	22,323	0	0 0		20'252	75/242				
795	HL Financial Services LLC				15,000			25,000	25,000	25,00	
796	Holl Capital Advisors, L.L.C.	47,139 675	45,048 675	44,999 675	44,954	45,995 1,300	45,370	15,076	27,344	26,44	
797	Homrich & Berg, Inc.	0/3	0/3	0/0	0						
798	Honeywell Capital Management LLC		430,900	482,300	and the state of t	622.500	4,673	4,752	6,188	9,04	
799	Hong Leong Asset Management Bhd.	565,900 439	430,900	100000	492,300 0	622,500	495,200	276,100	305,300	314,10	
800				439	270	-	0	0		10.00	
801	Houkamp Krueger Financial Services, Inc /ADV	0	0	0	0	0			13,535	13,58	
802	Hoplite Capital Management, L.P	0	0	0	0	0	0	846,828	903,194	1,231,75	
803	Horizon Kinetics LLC			0	0	0	0	3,566	3,932	3,93	
804	Horizons ETFs Management (Canada) Inc	9,611	11,711	11,649	13,187	10,411	15,013	1,772	1,823	1,75	
	Horrell Capital Management, Inc.	2,246	56	56	0	0	0	0	0		
805	Hottinger & Cie	2,450	2,450	2,450	2,450	2,450	2,450	2,450	2,450		
806	Howard Hughes Medical Institute	0	0	0	0	6,215	1,276	11,280	14,139		
807	Howe and Rusling, Inc.	300	0	0	0	22	22	22	27		
808	HRS Management LLC	0	0	0	0	0	0	0	0	17,50	
809	HRT Financial LLC	0	0	0	4,592	0	0	0	0	8,77	
810	HSBC Bank USA, N.A.	3,146	3,252	3,229	3,246	4,407	113,244	120,043	157,525	158,95	

Ĥ_	Investor Name	Quarterly Share Ownership for Reporting Institutions									
		31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17	
811	HSBC Global Asset Management (Canada) Limited	0	0	0	0	.0	0	0	21,655	39,80	
812	HSBC Global Asset Management (France) S.A.	3,490	0	3,490	3,490	3,832	3,923	3,923	3,911	4,21	
813	HSBC Global Asset Management (International) Limited	1,679	1,679	1,679	1,679	1,679	1,679	1,679	1,679		
814	HSBC Global Asset Management (Taiwan) Limited	O.	0	0	0	Q.	1,500	1,500	2,224	3,16	
815	HSBC Global Asset Management (UK) Limited	2,496,489	2,150,701	1,108,725	702,824	395,123	295,446	367,627	409,966	621,03	
816	HSBC Global Asset Management Deutschland GmbH	0	0	0	0	0	0	25,000	0		
817	HuaAn Fund Management Co., Ltd.	1,000	16,600	16,600	12,600	12,600	20,600	20,600	11,800	11,80	
818	Hudock Capital Group, LLC	1,120	1,027	1,027	1,027	1,027	1,027	1,027	1,027	1,02	
819	Hudson Bay Capital Management LP	384,706	328,887	409,537	330,437	0	60,000	0	0		
820	Hudson Valley Investment Advisors, LLC	3,340	3,215	0	0	0	0	0	0		
821	Huntington Private Financial Group	165,323	178,963	145,939	122,944	165,323	165,323	32,234	31,535	27,79	
822	Hwabao WP Fund Management Co., Ltd.	942	76,657	76,657	188,437	188,437	148,784	148,784	94,163	94,16	
823	Thereaja Gestion S.G.L.I.C., S.A.	1,401	1,401	1,398	0	0	0	D	.0	1 11	
824	IBK Asset Management Co., Ltd.	537	541	448	455	455	488	506	506	50	
825	IBM Retirement Fund	124,339	124,055	123,672	123,520	66,879	67,012	51,553	52,509	6.24	
826	ICBC Credit Suisse Asset Management Co. Ltd.	44	44	44	44	44	304	304	0	0.0,	
827	ICC Capital Management, Inc	30,140	30,140	0	0	0	0	0	0		
828	ICM Asset Management, Inc.	11,435	13,350	8,700	9,110	8,315	0	4,105	4,010		
829	TCON Advisers, Inc.	0	0	0	128,200	135,100	94,550	0	0		
830	ICW Group	22,360	22,360	29,520	20,000	0	0	0	0		
831	iD-Sparinvest A/S	5,606	5,606	3,506	3,506	6,506	3,000	3,000	986	4,68	
832	IFM Investors	0	0,000	0	0,500	0,500	0	0	7,316	11.50	
833	IG Wealth Management	12,100	30,857	15,569	14,255	56,830	121,231	115,474	117,975	19.18	
834	Ignis Investment Services Limited	539,114	539,114	539,114	539,114	539,114	539,114	539,114	0	12,11	
835	IHT Wealth Management, LLC	0	227,114	0	337,114	335,114	337,114	0	3,713	3,09	
836	IKOS CIF Ltd	0	0	0	2,884	2,895	0	0	0	3,0	
837	IM Gestão de Ativos, Sociedade Gestora de Fundos de Investi	254	108	0	2,004	2,693	0	0	0		
838	Independence Capital Asset Partners, LLC	5,156	100	0	0	0	0	0	0		
839		3,130	0	0					6.965		
840	Independent Financial Partners	279	358	169	1,692	2,836 169	3,259 169	3,922 169	169	7,04	
841	Index Management Solutions, LLC IndexIQ Advisors LLC	2,643	3,087	1,825	716		680		2,889	7.84	
842				1,823		3,197	080	1,445	2,889	7,64	
843	Industrial Alliance Investment Management Inc.	2,400	2,400	0	0	0					
844	Informed Portfolio Management AB	7,311	10 May 20 May		0	0	1,300	1,300	1,300	1,30	
845	ING Bank N.V.	173,134	129,594	101,256	129,211	74,504	6,471	8,715	32,258	28,59	
	Ingalls & Snyder LLC (Asset Management)	55,154	54,162	56,730	40,184	35,134	35,238	33,308	34,276	37,10	
846	Inspire Investing	0	0	0	0	0	0	0	0	12	
847	Institutional Capital, LLC	176,653	176,456	149,473	71,713	61,013	61,013	61,013	63,213	63,21	
848	Intact Investment Management Inc.	8,700	10,900	11,500	14,600	16,600	15,600	15,500	13,700	4,30	
849	Integral Derivatives LLC	17,239	0	34,378	15,855	0	0	0	66,428	117,33	
850	Integrated Investment Consultants, LLC	0	0	σ	0	576	576	576	576	5	
851	Integrated Wealth Management	2,086	1,949	2,032	549	549	549	549	0		
852	Intellectus Partners, LLC	0	0	0	0	0	0	0	83		
853	Intersect Capital, LLC	697	0	0	0	.0	0	0	0		
854	INTRUST Bank, N.A.	12,220	12,659	12,428	28,329	16,607	15,750	15,690	14,094	13,97	
855	Inversis Gestión, S.A., SGIIC	250	250	250	0	0	0	0	0		

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	Investor Name	Quarterly Share Ownership for Reporting Institutions									
#		31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mat-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17	
856	Invesco Advisers, Inc.	4,603,183	3,131,521	2,693,277	2,479,116	368,857	348,939	363,609	2,544,803	3,062,93	
857	INVESCO Asset Management (Japan) Ltd.	20,735	18,835	17,535	16,135	15,435	14,335	13,735	13,035	12,03	
858	INVESCO Asset Management Deutschland GmbH	38,618	40,718	88,318	83,518	44,918	44,918	44,918	45,018	91,21	
859	INVESCO Asset Management Limited	55,500	55,500	0	0	0	0	0	0		
860	INVESCO Australia Ltd	0	0	9,000	9,000	9,000	9,000	9,402	9,402	21,88	
861	Invesco Canada Ltd.	480,078	483,994	511,644	467,414	467,414	496,339	483,641	458,540	448,49	
862	Invesco Capital Management LLC	225,079	222,543	187,812	184,178	244,869	264,089	344,412	397,945	387,52	
863	INVESCO Global Structured Products Group	141,420	142,848	169,421	218,601	239,499	220,124	230,007	220,472	268,98	
864	Invesco Hong Kong Limited	6,000	6,000	6,000	6,000	0	0	0	0	9,22	
865	Invesco Management Group, Inc.	5,231	5,820	6,216	6,049	13,166	13,371	14,645	16,671	23,38	
866	Investec Asset Management (Pty) Ltd.	0	240,921	308,624	276,124	0	0	0	0		
867	Invester Asset Management Ltd.	650,584	756,655	574,173	601,311	733,372	772,877	705,898	647,534	659,93	
868	Investee Asset Management North America, Inc.	0	7,300	124,687	208,700	183,360	210,781	202,346	191,001	110130	
869	Investitori SGR S.p.A.	0	0	0	0	0	2,000	2,000	2,000	2,00	
870	Investment Management of Virginia, L.L.C.	69,065	38,758	39,836	34,210	0	0	0	0	-	
871	Investors Capital Advisory Services	3,287	3,286	0	0	0	0	0	0		
872	Invictus RG Pte. Ltd.	600	0	0	0	0	0	0.	15		
873	IONIC Capital Management, L.L.C.	0	0	18,814	0	0	0	0	D	73,30	
874	IPConcept (Luxemburg) S.A.	1,400	1,400	0	0	0	0	0	0	,,,,,,,,	
875	Ireland Strategic Investment Fund	4,616	4,616	4,616	4,616	4.616	4,616	4,616	0		
876	Iridian Asset Management LLC	5,282	5,082	5,082	5,082	4,582	4,582	4,396	3,896	37,69	
877	Irish Life Investment Managers Ltd	68,782	70,771	70,771	69,883	70,311	76,279	81,765	82,757	81,56	
878	Israel Discount Bank of New York	00,702	0	0	0	0	0	0	80	31.3 4.2%	
879	IST Investmentstiftung	0	0	0	232	235	237	252	249	18	
880	Ivory Investment Management, LLC	0	0	0	173,892	0	0	0	0	10	
881	Ivy Investment Management Company	549.425	1,093,075	1,991.325	2,363,884				1,523,588	2,023,69	
882	J. Goldman & Co., L.P.	0	0 0	1,991.323	2,303,004	889,555 31,300	1,002,765	607,475		2,023,09	
883	J. M. Hartwell L.P.						0	18,000	14,400		
884	J.M. Forbes & Co. LLP	3,800	3,800	3,800	0	0	8,000	20,175	118,350	15,87	
885	J.P. Marvel Investment Advisors, Inc.	73,506			7	0	0	0	0		
886	J.P. Morgan (Suisse) S.A.	8,000	8,000	8,000	8,000	8,000		0	The state of the s	(2.00	
887				16,092	16,920	15,776	9,950		9,253	13,99	
888	J.P. Morgan Asset Management (Hong Kong) Ltd. J.P. Morgan Securities LLC	21,500	23,500	23,500	23.500	26,369	26,369	19,269	171	26,66	
889		1,154,931	1,869.553	2,034,735	2,107,423	2,164,475	2,914,203	2,984,952	682,211	2,635,51	
890	J.P. Morgan Securities ple	8,990		0	3,983	0	0	0	0	33	
	Jabre Capital Partners S.A.	0	0	60,000	0	0	0	0	120,000	170,00	
891	Jackson National Asset Management, LLC	0	290	800	800	800	0	0	0	00.0	
892	Jackson Square Partners, LLC	79,090	0	0	0	0	28,538	53,445	28,538	28,53	
893	Jacobi Capital Management, LLC	0	0	0	0	0	364	364	242	36	
894	Jacobs & Company, LLC	15,945	15,895	15,895	14,849	14,026	12,827	10,961	10,961	10,84	
895	Jacobs Levy Equity Management, Inc.	0	0	183,485	230,971	6,665	15,030	67,930	166,090	63.72	
896	Jacobus Wealth Management, Inc.	6,290	6,312	6,324	6,195	6,195	6,195	6,195	6,195	6,19	
897	Jafra Capital Management LP	0	0	0	0	0	0	0	10,000		
898	Jamison, Eaton & Wood, Inc.	33,674	0	O	D	0	0	0	0		
899	Jana Investment Advisers Pty Ltd.	0	0	1,791	1,629	1,629	1,629	1,629	1,629	1,62	
900	Jane Street Capital, L.L.C.	7.944	13,974	28,925	8,784	19,851	10,489	0	8,754	163,98	

				Quarter	v Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
901	Janney Montgomery Scott LLC	40,672	38,811	38,888	29,826	73,092	29,826	81,970	109,477	109,73
902	Janus Henderson Investors	3,248,690	2,842,017	2,900,315	2,771,893	2,761,386	2,986,110	3,233,065	3,338,390	3,857,74
903	Jefferies LLC	184,250	548,111	441,504	345,608	400	350	14,528	26,916	50,05
004	Jennison Associates LLC	4,756,376	4,750,431	4,647,548	3,154,849	2,295,359	1,867,455	2,408,439	2,741,648	2,790,57
905	JFS Wealth Advisors, LLC	279	279	30	0	0	0	0	0	
906	JKO Asset Management Co., Ltd.	0	5,637	5,637	0	0	6,114	6,114	7,164	7,16
907	JNBA Financial Advisors Inc.	O	0	0	0	0	0	2,152	0	3
806	Joel Isaacson & Co., LLC	1,116	1,116	1,116	2,116	2,816	2,116	2,116	2,116	
909	Johnson Financial Group Inc.	4,365	5.486	3,682	3,993	6,313	2,709	2,324	3,448	1,51
910	Johnson Investment Counsel, Inc.	5,024	5,424	4,724	0	0	3,888	4,192	3,837	3,63
110	JP Morgan Asset Management	5,085,912	6,579,141	5,827,480	1,134,766	355,804	281,312	843,504	6,012,790	7,593,89
912	JPMorgan Asset Management (Japan) Limited	0	0	52,028	0	0	0	5,411	4,618	1,40
913	JPMorgan Asset Management (Taiwan) Limited	13,622	14,744	5,450	- 0	0	0	0	8,301	9,84
914	JPMorgan Asset Management U.K. Limited	2,436,277	2,851,606	2,446,427	1,975,763	1,238,327	813,826	684,906	832,364	909,71
915	JPMorgan Private Bank (United States)	1,472,391	1,602,159	1,487,985	795,767	458,739	417,708	306,905	1,266,981	1,834,78
916	Jump Trading, LLC	3,830	6,852	6,852	0	63,033	4,467	0	0	
917	K2 Advisors L.L.C.	497	497	497	497	497	0	0	0	
918	Kairos Investment Management Limited	0	0	0	0	0	0	6,000	0	
919	Kairos Partners SGR S.p.A.	0	0	0	0	0	0	0	0	15,00
920	Kames Capital	0	0	0	0	0	0	0	0	9,43
921	Kanaly Trust Company	1,045	1,045	1,210	1,137	1,390	2,004	1,404	1,477	1,47
922	Kanawha Capital Management, LLC	17,909	17,885	16,685	18,600	18,900	18,755	18,605	18,605	19.05
923	Karamaan Group, LLC	16,000	0	0	0	0	0	0	0	12,44
924	Kayar Capital Partners, LLC	3,647	3,646	3,546	3,508	0	0	3,208	3,228	
925	KB Asset Management Co., Ltd	0	0	0	0	0	372	481	104	10
926	KBC Asset Management N.V.	201,742	172,791	97,268	118,406	187.978	187,978	187,978	187,978	187.97
927	KBC Fund Management Limited	0	0	0	0	46,219	46,219	46,219	46,219	46,21
928	KBC Group NV	295,288	411,823	338,249	246,387	345,935	203,146	241,912	345,245	538,39
929	KB-Vermögensverwallung GmbH	0	0	0	0	0	1,000	1,000	1,000	3,00
930	Keeley-Telon Advisors, LLC	32,825	32,715	α	0	.0	0	0	0	~3~~
931	Kentucky Retirement Systems	34,101	34,273	34,858	38,596	46,711	43,406	39,013	40,556	35,83
932	Kentucky Retirement Systems Insurance Trust Fund	16,289	16,569	16,974	19,033	23,007	20,609	16,519	18,095	15.11
933	Kentucky Teachers' Retirement System	146,914	142,214	134,104	128,274	133,374	68,524	68,524	68,524	63,72
934	Kernodle & Katon Asset Management Group, LLC	0	0	0	2,090	2,090	2,090	2,090	1,390	1.39
935	Key Group Holdings (Cayman), Ltd.	0	0	0	.0	0,000	0	21,600	15,000	16,40
936	Key Square Capital Management LLC	0	0	0	0	0	0	0	346.588	10,71
937	KeyBanc Capital Markets	177,746	172,132	170,022	166,207	164,120	160,668	159,038	160,027	157,37
938	Kimelman & Baird, LLC	12,058	12,558	12,558	12,558	12,558	12,558	12,558	12,558	12,55
939	Kings Point Capital Management L.L.C.	890	690	690	690	690	690	690	690	69
940	Kistler-Tiffany Advisors	238	238	239	489	489	444	425	425	42
940	KLCM Advisors, Inc.	4,567	4,614	4,967	4,967	5,167	7,367	5,827	6,167	5,96
942	Kleinwort Benson Bank Ltd.	Vac.,e	4,614	4,907	4,967	7,200	7,200	0	0,107	3,31
943	Klingenstein Fields Wealth Advisors	11,070	10,725	31,555	10,575	43,540	6,030	6,030	5,230	5,21
943	KMS Financial Services, Inc.	4,536	4,536	4,536	4,536	43,540	4,536	0,430	0,230	3(4)
944	Knott Partners Management, LLC	298,350	301,410	276,210	276,210	276,210	301,210	80,760	80,760	80.76

				Quarter	ly Share Own	ership for Rej	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
946	Kohlberg Kravis Roberts & Co. L.P.	24,000	0	0	0	0.	0	0	0	0
947	Korea Investment Corporation	463,700	333,200	509,739	554,639	462,639	523,939	589,743	664,396	628,266
948	Kredietrust Luxembourg S.A.	Ö	0	0	0	0	0	0	13,450	12,800
949	Krilogy Financial LLC	0	0	0	0	416	416	416	416	416
950	KTB Asset Management Co., Ltd	700	700	700	0	0	0	0	0	(
951	L&S Advisors Inc.	Ö	0	0	O.	0	0.	0	49,838	22,945
952	L. Roy Papp & Associates, LLP	0	0	0	0	α	0	0	3,075	
953	La Banque Postale Asset Management	3,170	3,170	4,042	3,980	4,510	4,733	4,953	12,822	(
954	Ladenburg Thalmann Asset Management Inc. (LTAM)	15,040	15,431	14,832	15,316	15,751	14,907	14,669	15,845	16,51
955	Lakeshore Capital, LLC	59,717	56,785	49,842	49,842	49,842	49,842	49,842	49,842	49,847
956	Landry Investment Management Inc.	0	0	0	0	1,200	1,700	4,200	2,900	2,900
957	Lansförsäkringar Fondförvaltning AB	45,004	45,004	45,004	45,004	45,004	45,004	.0	0	
958	LaSalle Investment Management Securities B.V.	1,801	7,430	7,418	7,418	7,418	7,418	7,418	7,418	7,418
959	Laurie J. Hall Trustee	7,120	7,196	7,196	6,556	3,436	3,816	3,816	3,560	3,560
960	Laurion Capital Management LP	0	85,600	0	331,600	198,265	78,287	Ü	0	325,018
961	Lawrence W. Kelly & Associates, Inc.	0	0	0	0	0	0	0	0	
962	Lawson Kroeker Investment Management, Inc.	13,700	13,400	0	0	0	α	0	0	
963	Lazard Asset Management Pacific Company	0	0	0	164,463	156,063	151,363	125,363	118,363	109,96
964	Lazard Asset Management, L.L.C.	3,606,851	3,461,507	3,597,507	3,540,453	1,499,064	1,241,953	1,051,305	935,571	760,34
965	LBA Wealth Management, LLC	0	α	300	0	0	0	0	0	
966	LBBW Asset Management Investmentgesellschaft mbH	1,315	1,315	1,315	1,315	1,315	1,315	1,315	0	
967	Leavell Investment Management, Inc.	2,783	5,911	5,511	5,439	5,965	5,931	5,931	5,439	3,95
968	Lebenthal Asset Management, LLC	2,948	4,248	2,815	3,128	4,888	6,824	7,124	8,424	12,41
969	Lebenthal Wealth Advisors, LLC	8,965	8,791	10,146	8,446	11,067	0	ū	0	
970	Ledyard National Bank	677	1,697	1,697	1,170	1,020	1,000	1,000	000,1	1.27
971	Lee Financial Company, L.L.C.	0	0	0	0	0	0	0	2,500	2,50
972	Legacy Advisors, LLC	0	0	0	0	0	0	0	1,000	1,00
973	Legacy Capital Partners, Inc.	26,025	25,325	25,275	20,880	18,155	17,765	17,465	19,115	16.05
974	Legal & General Investment Management America Inc.	0	0	0	0	0	18,968	18,968	18,968	23,05
975	Legal & General Investment Management Ltd,	1,951,900	2,006,014	2,089,969	2,106,572	2,242,180	2,375,904	2,578,305	2,643,578	2,690,60
976	Leisure Capital Management, Inc.	29	29	29	29	29	29	29	0	
977	Lemanik Asset Management S.A.	5,500	6,500	1,000	1,000	1,000	1,000	1,000	1,000	1,00
978	Lenox Wealth Advisors, LLC	122	61	61	0	0	0	0	0	
979	Level Four Advisory Services, LLC	0	0	0	0	0	0	0	3,461	
980	Levin Capital Strategies, L.P.	1,118,005	1,177,442	1,374,885	1,724,825	1,586,508	1,770,778	1,210,618	1,588,789	962,08
981	LGT Capital Partners Ltd.	0	26,900	26,900	26,900	26,900	36,200	36,200	43,300	43,30
982	Liberty Capital Management, Inc.	0	0	0	0	0	0	140	140	14
983	Liberty Mutual Insurance Group	40,928	29,763	32,120	29,831	32,374	35,062	34,388	40,560	30,59
984	Lincoln Investment Advisors Corporation	0	13,494	13,494	0	10,650	10,650	21,408	0	30,37
985	Linscomb & Williams, Inc.	3,725	3,733	3,745	0	0,050	0	3,636	3,642	3,60
986	Litespeed Management LLC	0	345,000	0,743	0	0	0	0	0	2,00
987	Live Your Vision, LLC	0	0	50	0	0	0	0	0	
988	Livförsäkringsbolaget Skandia, ömsesidigt	47,467	47,467	47,467	38,667	38,667	51,367	51,367	30,867	10,66
989	LLB Asset Management AG	17,000	17,000	23,942	23,942	23,942	21,942	15,942	15,942	15,94
990									214,690	193,40
990	LMCG Investments, LLC	5,956	5,956	5,956	5,956	3,772	182,202	211,506	214,090	19.

Exhibit C

				Quarter	lv Share Own	ership for Re	porting Institu	itions	_	
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
991	LMR Partners LLP	0	10,191	15,600	0	16,784	0	0	17,415	3,890
992	LNZ Capital LP	0	0	0	0	0	0	239,134	0	795,000
993	Loews Corporation	10,400	10,400	14,005	12,935	12,050	12,050	11,300	11,300	11,300
994	LOGIO Asset Management Ltd	0	2,190	2,190	3,100	0	0	0	0	0
995	Lombard Odier Asset Management (Europe) Ltd	33,179	28,179	20,701	20,701	20,701	22,994	6,183	6,183	21,704
996	Lombard Odier Asset Management (USA) Corp	0	0	0	0	0	0	110,000	182,820	147,072
997	Lombard Odier Darier Hentsch & Cie	9.756	8,992	0	2,978	2.978	0	0	0	C
998	Lombard Odier Gestión (España) SGIIC, S.A.	11,922	11,922	11,922	11,922	11,922	11,922	0	0	0
999	London Capital Management Ltd.	49,547	80,179	80,179	79,396	79,396	27,500	27,500	0	0
1,000	Loomis, Sayles & Company, L.P.	58,644	173,237	576	3,400	3,424	0	23,412	1,059,684	1,093,984
1,001	Lord, Abbett & Co LLC	0	39,400	39,500	45,600	42,700	41,700	41,500	1,525,982	957,478
1,002	Loring, Wolcott & Coolidge Fiduciary Advisors, LLP	6,125	6,125	6,125	7,025	7,025	7,363	7,463	7,363	7,363
1,003	Los Angeles Capital Management And Equity Research, Inc.	34,559	201,551	24,243	9,512	5,464	203,408	483,669	49,360	31,009
1,004	Louisiana State Employees' Retirement System	36,500	37,000	37,100	35,600	34,000	33,500	34,700	35,100	34,400
1,005	LPL Financial LLC	50,757	41,103	42,253	46,884	44,457	0	15,912	20,191	20,794
1,006	LS Investment Advisors, LLC	11,088	11,142	12,363	13,108	15,644	13,925	12,325	13,589	14,131
1,007	LSV Asset Management	0	0	0	0	0	0	0	45,925	64,625
1,008	Lucas Capital Management, L.L.C.	39,267	32,773	30,781	26,310	0	0	0	0	17,810
1,009	Luciis Advisors LLC	3,419	0	0	0	0	0	0	0	17,016
1,010	Lumbard & Kellner, LLC	3,016	3,016	0	0	0	0	0	3,016	
1,011	Luminus Management, L.L.C.	129,000	172,559	149,396	557,858	D	0	0	0,010	
1,012	Luther King Capital Management Corp.	159,262	161,192	156,634	157,505	155,862	147,483	146,282	143,057	153.147
1,013	Lyell Wealth Management LP	0	0	0	0	0	0	0	19,460	20,875
1,014	Lyxor Asset Management	78,684	78,805	72,896	82,344	57,816	61,826	100	72,310	20,07.
1,015	M & G Investment Management Ltd.	207,715	68,353	68,353	68,353	67,817	67,817	80,093	180,093	209,706
1,016	M&R Capital Management Inc.	4,624	4,624	4,522	4.522	4,522	4,722	4,722	4,722	4,722
1,017	M. D. Sass Investors Services, Inc.	0	0	0	0	0	0	4,722	550,310	525,310
1,018	MacKay Shields LLC	363,855	404,580	536,107	603,988	719,227	920,295	42,552	74,704	170,773
1,019	Mackenzie Financial Corporation	0 0	6,600	26,379	33,686	37,487	42,931	42,332	74,704	170,772
1,020	Mackenzie Investments Europe Limited	0	0,000	20,379	0,020	0	42,931	0	98,791	
1,020	Macquarie Investment Management	92,500	80,200	60,050	74,650	90,050	70,100	86,099	116,328	123,045
1,022	Macquarie Investment Management Ltd.	11,400	11,400	11,400	11,400	9,400	9,400	9,400	14,100	12,700
1,023	Madrona Funds, LLC	224	0	0	0	9,400	9,400	0,400	14,100	12,700
1,024	Magnetar Capital Partners LP	0						2000 00 00 00 00 00 00 00 00 00 00 00 00		7
1,024	MAI Capital Management, LLC		629,158	629,158	629,158	629,158	629,158	629,158	629,158	8,496
1,026	Mairs and Power, Inc.	5,174	2,814				4,814	5,366	4,837	4,163
1,020		3,105	3,056	0	0	0	6,049	6,224	9,016	9,384
	Majedie Asset Management Limited	0	0	0		0	0	0	130,565	99,490
1,028	Man Investments, Ltd.	12,930	12,930	12,930	12,930	12,930	0	0	0	2 512 102
41.	Managed Account Advisors LLC	925,301	1,605,029	1,788,781	2,256,547	2,831,952	2,820,486	2,465,501	2,744,120	2,513,187
1,030	Manulife Asset Management Accord (2015) Inc.	62,112	59,393	59,393	59,393	59,393	59,393	59,393	59,393	59,393
1,031	Manulife Asset Management Limited	249,576	255,957	267,527	219,983	224,481	228,916	229,846	253,984	355,622
1.032	Manulife Investment Management (Hong Kong) Limited	36,751	36,751	0	34,623	35,374	33,961	33,961	37,478	37,023
1,033	Manulife Investment Management (US) LLC	282,646	270,033	273,878	244,253	230,969	251,062	260,710	404,796	402,569
1,034	Maple Capital Management, Inc.	3,236	3,027	0	.0	0	0	0	0	(
1,035	Maple Securities USA Inc.	10,355	13,623	0	0	.0	0	0	0	.0

				Quarterl	y Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,036	Marathon Trading Investment Management LLC	0	0	0	0	5,200	0	0	Ů.	
1,037	Marble Harbor Investment Counsel, LLC	6,010	3,310	0	U.	.0	0	0	0	
1,038	Marco Investment Management, L.L.C.	2,490	0	0	0	0	0	0	0	
1,039	Marielta Investment Partners, LLC	0	0	0	0	0	0	0	5,000	
1,040	Mariner Wealth Advisors	3,589	6,291	7.844	0	0	4,870	7,595	4,870	
1,041	Mariner Wealth Advisors-Madison, LLC	0	0	0	0	0	0	250	0	
1,042	Mariner Wealth Advisors-NYC, LLC	621	0	0	0	0	0	645	0	
1,043	Markston International LLC	150,928	138,128	120,510	108,210	93,625	91,054	80,268	72,479	73,22
1,044	Marque Millennium Capital Management LLC	54,970	41,970	31,170	31,170	31,170	31,170	31,170	31.170	31,17
1,045	Marshall Wace LLP	75,776	0	0	45,863	247,541	4,898	798,501	69,667	
1,046	Marsico Capital Management, L.L.C.	87,643	0	0	0	0	0	0	0	
1.047	Martin Currie Investment Management Ltd.	70,420	67,320	79,470	74,970	75,070	67,370	65,570	62,670	57.87
1,048	Mascoma Wealth Management LLC	0	0	0	0	0	0	0	62	6
1,049	Mason Capital Partners	101,508	56,134	56,409	25,863	23,916	23,956	41,982	13,511	13,57
1,050	Mason Street Advisors, LLC	65,249	65,404	65,729	66,384	67,725	68,752	73,815	76,455	77,24
1,051	Massachusetts Mutual Life Insurance Company	0	0	0	0	0	0	8,953	10,779	10,77
1,052	Massey Quick Simon & Co., LLC	0	0	0	0	0	0	0	1,514	
1,053	Matrix Asset Advisors, Inc.	62,372	71,914	100,157	47,454	0	0	Ó	.0	
1,054	Mawer Investment Management Ltd.	21,534	22,097	22,398	24,083	24,083	24,083	24,083	24,083	24,0
1,055	MB Financial Bank, N.A.	472	472	472	472	472	472	472	472	4
1,056	McAdams Wright Ragen, Inc.	4,937	0	0	0	0	0	0	0	
1,057	McKinley Capital Management, LLC	202,538	183,738	183,058	177,348	0	0	0	0	
1,058	Moshane Partners	2,027	2,027	2,027	2,027	2,027	2,554	2,538	2,538	2,5
1,059	Meadow Creek Investment Management LLC	0	0	0	0	0	0	0	5,408	6,83
1,060	Mechanics Bank	5,070	2,890	0	0	0	0	0	0	0,0.
1,061	Mediobanca SGR S.p.A.	21,687	21,687	8,687	17,687	7,687	11,687	11,705	11,809	11,80
1,062	Meeder Assel Management, Inc	13,890	0	0	755	798	12,553	5,780	19,753	40.8
1,063	Meeschaert Asset Management, S.A.S.	1,500	1,500	1,500	1,500	2,000	2,000	2,000	1,650	1.25
1,064	Meiji Yasuda Asset Management Company Ltd.	26,449	26,889	27,636	35,963	36,623	38,872	41,140	44,631	45,4
1.065	Meiji Yasuda Life Insurance Company	36,876	36,876	37,276	44,476	44,476	45,176	40,576	35,576	36.5
1,066	ACC 10 (1981) - 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,								4,699,498	4,836,4
1.067	Mellon Investments Corporation Menora Mivtachim Insurance Ltd.	5,590,050	5,415,802	4,310,723	3,683,610	2,770,663	2,657,463	2,838,528		6.3
		545,247	562,337	562,337	562,337	562,337	352,937	19,507	6,300	0,21
1,068	Menta Capital LLC	11,460	0	0	0	0	0	0	0	4.0
1,069	Mercer Capital Advisers, Inc.	5,122	5,122	5,122	5,122	5,122	5,122	5,122	5,122	4,8
1,070	Merian Global Investors (UK) Limited	0	0	3,800	0	0	0	0	0	
1,071	Meridian Investment Advisors, Inc.	5,400	5,400	5,400	5,400	5.400	5,400	5,400	5,400	5,0
1,072	Meridian Investment Counsel Inc.	0	0	0	4,394	4,394	4,394	4,394	4,394	4,39
1,073	Merriman Wealth Management, LLC	0	0	0	O	0	51,610	40,990	39,057	39,60
1,074	Metropolitan Life Insurance Co. (US)	288,634	284,264	279,927	278,083	278,135	276,835	291,188	292,190	276,79
1,075	Meyer Handelman Company LLC	119,820	119,820	119,820	119,820	129,820	130,220	131,020	161,020	161.0
1,076	MFC Asset Management PCL	0	0	0	0	0	500	500	500	5.
1,077	MFP Investors, LLC	0	0	0	62,000	62,000	62,000	62,000	62,000	62,0
1.078	MFS International (U.K.) Limited	0	0	0	0	0	0	0	10,139	10,13
1,079	MFS Investment Management	3,293,043	2,320,943	1,920,550	1,395,591	458,134	444,296	670,312	1.024,630	2,145,14
1,080	MFS Investment Management Canada Limited	206,821	141,234	136,885	135,769	0	0	0	37,500	36,5

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		-		Quarter	y Share Own	ership for Re	porting Institu	itions		
Ħ	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,081	Michigan Department of Treasury	195,487	196,987	183,387	173,787	175,087	177,287	190,487	182,827	183,627
1,082	Middlefield Capital Corporation	0	0	0	10,000	0	0	7,500	8,500	8,500
1,083	Migros Bank Asset Management	3,250	3,250	3,250	3,250	3,250	3,250	3.250	500	500
1,084	MIK Capital, LP	Ò	0	0	0	0	0	0	1,003,094	772,020
1,085	Miles Capital, Inc.	6,216	5.775	5,661	5,394	0	Ō	O	0	
1,086	Millennium Management LLC	2,792,994	1,183,105	1,226,434	65,998	3,870,960	1,392,106	3,741,590	4,817,145	5,143,15
1,087	Miller/Howard Investments, Inc.	82,304	81,606	91,398	97,112	177,386	141,957	137,631	168,107	103,44
1,088	MinichMacGregor Wealth Management, LLC	0	0	.0	7	7	7	7	36	2
1,089	Mirae Asset Global Investments (USA) LLC	43,369	43,369	43,369	43,369	43,369	66,150	72,487	81,255	74,05
1,090	Mirae Asset Global investments Co., Ltd.	69,385	68,513	72,118	78,584	78,986	78,986	78,986	78,986	78,98
1,091	Mirova	3,875	4,002	3,735	3,735	0	5,447	0	8,778	17,84
1,092	Mitchell, McLeod, Pugh & Williams, Inc.	9,200	9,200	9,200	8,400	8,400	8,400	8,400	8,900	8,90
1,093	Mitsubishi UFJ Kokusai Asset Management Co., Ltd.	67,989	0	63,617	67,432	73,908	76,003	85,208	85,757	89,87
1,094	Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.	0	110	50	20	0	90	90	40	2
1,095	Mitsubishi UFJ Trust and Banking Corporation	957,516	971,872	1,012,950	997,197	1,015,833	1,037,112	1,160,408	1,158,442	1,104,29
1,096	Mizuho Asset Management Co., Ltd.	3,324	4,715	5,712	6,420	3,324	5,641	5,223	5,223	
1,097	Mizuho Securities USA, LLC.	10,000	0	0	0	20,000	0	138,200	0	20,00
1,098	Mizuho Trust & Banking Co., Ltd.	753,903	728,051	754,210	764,833	769,342	772,087	855,717	0	
1,099	MLC Investments Limited	0	0	3,951	4,331	4,646	17,868	18,666	20,823	20.89
1,100	Mn Services Vermogensbeheer B.V	0	0	0	0	12,737	12,845	14,174	14,331	14,90
1,101	Monashee Investment Management, LLC	0	0	0	0	0	0	300,000	0	
1,102	Monetary Management Group, Inc.	16,000	16,200	2,300	2,100	2,100	2,100	2,100	2,100	2,10
1,103	Monetta Financial Services Inc.	0	0	0	0	0	10,000	10,000	10,000	10,00
1,104	Monongahela Capital Management	5,487	5,287	5,287	4,587	4,587	4,587	4,587	4,587	3,38
1,105	Monroe Bank & Trust	200	0	0	0	0	0	0	0	3,50
1,106	Montag & Caldwell, LLC	27,497	27,497	27,497	27,497	27,497	27,497	27,497	0	
1,107	Montage Investments, LLC	0	0	0	0	6,580	6,580	6,580	6,580	6,58
1,108	Montecito Bank & Trust	8,098	8,098	7,573	7,998	6,275	6,275	6,275	0,500	0,50
1,109	Montgomery Investment Management Inc.	101,480	102,484	102,484	102,884	101,284	123,569	123,439	122,613	122,04
1,110	Monyx Asset Management	0	24,678	24,678	27,315	27,315	2,612	2,612	0	155,00
1,111	Moody National Bank	10,501	10,501	10,511	10,511	10,711	10,726	10,726	10,726	10,72
1,112		10,501	0	0.311		10,105	0,720		27,398	10,72
1,113	Moody, Lynn & Lieberson, LLC Moore Capital Management, LP				5,350	30,000		36,020 856,798	307,035	305,00
		93,364	199,500	155,000			765,000			
1,114	Moors & Cabot Inc.	4,903	4,705	4,706	5,601	6,126	5,899	4,900	7,716	7,21
1,115	Morgan Stanley & Co. International Plc	10,364	10,738	15,161	11,036	446,756	5,856	12,222	20,272	25,63
1,116	Morgan Stanley & Co. LLC	454,807	1,182,638	663,291	1,718,765	3,383,991	2,431,708	1,970,339	444,035	1,115,08
1,117	Morgan Stanley Investment Management Inc. (US)	74,354	63,038	61,295	53,610	52,341	54,158	34,733	42,536	63,74
1,118	Morgan Stanley Investment Management Ltd. (UK)	2,125	1,800	0	0	1,700	1,400	9,188	3,823	
1,119	Morgan Stanley Smith Barney LLC	1,592,498	1,720_159	1,702,597	1,591,848	1,489,209	1,549,614	1,703,314	2,073,904	2,266,71
1,120	Morgens, Waterfall, Vintiadis & Co., Inc.	0	0	0	0	0	0	65,000	55,000	55,00
1,121	Morningstar Investment Services LLC	.0	0	0	0	81,783	69,380	52,849	17,594	1.2
1,122	Mosaic Family Wealth, LLC	0	0	0	3,678	4,190	8,298	8,708	9,374	3,74
1,123	МОТСО	35	35	35	235	235	200	200	200	7
1,124	MPAM Credit Trading Partners L.P.	0	0	10,000	α	0	0	0	0	
1.125	MSD Partners, L.P.	257,699	631,104	.0.	0	351,703	0	0	0	1

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	_			Quarter	ly Share Own	ership for Rep	oorting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,126	MU Investments Co., Ltd.	3,060	3,060	3,060	0	0	0	0	0	
1,127	Municipal Employees' Retirement System of Michigan	15,000	15,060	15,210	15,330	15,640	16,140	16,170	17,510	18.03
1,128	Murphy Capital Management, Inc.	6,785	8,385	14,196	6,030	6,330	6,675	6,925	7,075	6,54
1,129	Mutual of America Capital Management LLC	69,045	70,591	71,150	71,253	73,158	59,569	64,087	65,158	94,59
1,130	MV Capital Management, Inc.	100	100	100	100	100	100	100	100	10
1,131	myCIO Wealth Partners, LLC	400	400	423	400	400	400	540	0	
1,132	National Asset Management, Inc.	0	3,100	4,795	0	4,943	0	0	0	
1,133	National Pension Service	180,544	210,947	260,344	277,628	289,195	342,832	373,002	413,786	447,08
1,134	NatWest Markets PLC	897	0	897	0	0	0	0	0	
1,135	Navellier & Associates Inc.	10,530	12,930	12,630	D	0	0	0	0	
1,136	NBG Asset Management Mutual Funds Management Company	1,300	1,900	1,900	1,900	600	600	600	1,200	1,20
1.137	NBT Bank N.A.	4,770	4,450	4,750	4,575	5.725	5,725	5,725	5,725	6.2
1,138	NCM Capital Management Group, Inc.	3,475	3,475	3,475	3,475	3,325	3,225	3,225	3,225	100
1,139	Nelson Capital Management	306	306	306	306	306	0	0	0	
1,140	Nelson, Van Denburg & Campbell Wealth Management Group,	5	5	5	5	5	5	5	5	
1,141	Neuberger Berman, LLC	4,536,033	4,287,936	4,019,694	3,254,591	2,746,605	2,658,395	2,527,668	2,528,483	2,535,60
1,142	Neuburgh Advisers LLC	0	0	0	0	0	0	0	7,436	9,39
1,143	Neue Aargauer Bank AG	Ō.	0	14,000	14,000	0	O.	0	0	2.44
1,144	Neville, Rodie & Shaw, Inc.	25,007	23,787	24,207	15,649	15,664	15,639	15,389	15,500	26,2
1,145	New Capital Management LP	0	0	0	0	0	0	0	938	9
1,146	New England Asset Management, Inc.	45,607	44,113	38,413	13,713	13,713	25,313	25,413	26,613	26,5
1,147	New England Research & Management, Inc.	3,700	3,700	3,700	15,715	0	0	25,415	20,013	20,0
1,148	New England Securities Corp	604	604	604	604	604	604	604	0	
1,149	New Harbor Financial Group, LLC	666	818	818	768	152	152	152	152	1
1,150	New Jersey Division of Investment	334,326	334,326	384,326	348,000	548,000	431,000	431,000	431,000	431,0
1,151	New Mexico Educational Retirement Board	58,788	53,588	57,088	55,188	56,288	59,488	51,688	58,288	56,6
1,152	New York Life Investment Management, LLC	0,766	92	15	15	95	0 0	0	0	30,0
1,153	New York State Common Retirement Fund		1,498,498		1,433,483	1,286,500	1,329,400	1,329,400	1,446,400	1,494,9
1,154	New York State Teachers' Retirement System	1,533,267	0.1	1,502,790			24			874,8
		936,158	911,508	911,522	911,547	860,761	860,948	852,805	858,320	014,0
1,155	Newman, Dignan & Sheerar, Inc.	3,041	3,108	0	0	0	0	0	0	1.00
1,156	NewMark Investment Management LLC	0	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1.6
1,157	NewSquare Capital LLC	30	30	30	30	689	0	0	.0	1
1,158	NEXT Financial Group, Inc.	5,493	5.193	5,043	4,544	3,544	2,719	2,680	2,680	2,2
1,159	NFJ Investment Group LLC	0	0	0	0	0	0	0	59,525	58,0
1,160	Nichols & Pratt, LLP	D	8,300	8,300	7,650	7,350	.0	0	0	
1,161	Nikko Asset Management Americas, Inc.	284,636	328.236	300,236	320,436	308,536	400,936	388,436	388,836	418,0
1,162	Nikko Asset Management Co., Ltd.	115,910	11,100	11,100	11,348	11,437	11,437	11,437	13,048	12,9
1,163	Nine Chapters Capital Management LLC	0	0	11,300	.0	0	0	0	0	250
1,164	Nippon Life Global Investors Americas, Inc.	108,150	108,150	143,690	126,030	.0	0	128,690	102,870	96,6
1.165	Nippon Life Global Investors Singapore Limited	0	0	0	0	0	0	0	5,582	5,5
1,166	Nippon Life Insurance Company	35,120	35,327	32,737	34,865	29,753	23,136	22,846	45,458	42,4
1,167	NISA Investment Advisors, L.L.C.	180,277	178,577	178,977	115,578	155,468	179,798	179,398	204,223	185,8
1,168	Nissay Asset Management Corp.	5.700	300	300	300	300	200	200	200	2
1,169	NN Investment Partners (Singapore) Ltd.	1,395	1,395	1,395	1,395	1,395	1,395	1,395	1,395	
1,170	NNIP Advisors B.V.	173,134	129,594	101,256	101,256	70,681	59,174	41,476	35,847	3,69

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	_			Quarter	y Share Own	ership for Rep	oorting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,171	NNIP Asset Management B.V.	68,125	51,502	115,577	115,577	93,633	93,633	48,625	48,625	40,07
1,172	Nomura Asset Management (UK) Ltd.	0	0	0	0	4,300	4,300	4,300	4,000	2,46
1,173	Nomura Asset Management Co., Ltd.	58,443	57,723	60,496	61.196	68,076	67,276	73,576	69,976	65,40
1,174	Nomura Asset Management Singapore Ltd.	0	0	0	0	0	0	0	0	6
1,175	Nomura Securities Co., Ltd.	176,532	60,918	133,425	12,590	4,864	10,427	13,957	174,561	89,94
1,176	Nordea Funds Oy	298,545	349,973	453,193	542,229	617,296	420,877	445,980	540,243	529,64
1,177	Norges Bank Investment Management (NBIM)	4,561,046	4,667,815	4,866,190	4,451,496	4,679,385	4,568,530	4,936,080	5,064,862	4,751,75
1,178	NORINCHUKIN BANK	55,346	54,233	54,568	49,405	26,095	26,773	28,568	33,904	36,32
1.179	North American Management Corp.	0	0	15,445	16,195	15,375	15,375	9,935	9,835	10,07
1,180	North Star Investment Management Corporation	1,004	1,004	1,094	0	0	0	0	0	
1,181	Northeast Financial Consultants Inc.	8,945	8,945	9,813	9,813	9,813	12,434	13,012	13,012	13,01
1,182	Northern Trust Global Investments	680,471	682,472	689,662	647,620	706,747	686,769	727,460	753,156	809,82
1,183	Northern Trust Global Investments Limited	1,424,707	1,504,111	1,407,793	1,184,421	1,161,140	945,906	1,030,413	963,394	959,02
1,184	Northern Trust Investments, Inc.	4,229,583	4,190,833	4,116,246	3,901,691	3,934,118	4,058,765	4,277,153	4,571,508	4,673,61
1,185	Northside Capital Management, LLC	0	0	0	0	0	0	0	0	7,53
1,186	Northstar Investment Advisors, LLC	10.850	10,850	10,850	10,850	14,175	13,835	9,535	8,835	8.83
1,187	Northstar Wealth Partners LLC	0	0	0	Ó	0	0	0	0	4,70
1,188	Northwestern Mutual Capital, LLC	8,532	8,532	8,299	7,374	9,784	9,784	8,218	9,624	7,68
1,189	Northwestern Mutual Investment Management Company LLC	18,469	18,741	18,796	19,304	19,412	19,472	53,985	64,178	112,99
1,190	NPC of America	0	0	3,152	0	0	0	0	0	1,1-,5
1,191	NTV Asset Management, L.L.C.	0	14,500	15,700	11,950	11,950	11,350	12,450	0	
1,192	Numeric Investors LLC	0	0	0	0	14,200	0	6,000	0	
1,193	NumerixS Quant	0	6,600	8,600	55,044	0	0	10,061	0	1.70
1,194	Numina Capital Management, LLC	0	0,000	67,000	141,000	0	0	85,000	0	1.1
1,195	Nuveen Asset Management, LLC	298,673	379,098	477,865	205,289	509,798	528,071	506,835	437,171	438.7
1,196	Nuveen LLC	3,810,510	5,362,270	5,563,281	4,135,993	3,624,413	4,144,924	3,411,633		3,220,0
1,197	Nykredit Bank AS	4,389	4,389	5,005,281	5,079		6,314	6,314	3,318,400	11,6
1,198	OakBrook Investments, LLC	55,400	48,400	46,900	29,740	3,863 29,200				
1,199	Oakworth Capital Bank	33,400	40,400		10		65,300	54,350	27,050	47,1
1,200	Oarsman Capital Inc.			0		40	3,248	2,964	2,964	2,9
1,200		5,796	5,496	5,446	4,476	0	0	0		7.7
	Obermeyer Wood Investment Counsel, LLLP	9,590	8,419	8,508	8,419	8,419	7,855	6.155	4,665	3,7
1,202	Octaner Asset Management Pte, Ltd.	0	4,650	4,650	4,650	4,650	4,650	4,650	4,650	4,6
1,203	Oddo BHF Asset Management GmbH	308	308	308	308	308	.308	308	308	3
1,204	Odey Asset Management LLP	0	0	0	0	0	0	0	0	35,0
1,205	ODIN Forvaltning AS	O O	0	Q	30,000	30,000	85,000	85,000	85,000	85,0
1.206	Off Asset Management	25,581	27,852	27,852	22,578	0	Ω	0	1,710	1,3
1,207	OFI SteelPath, Inc.	0	D	0	3,187	3,187	9,987	9,487	10,587	11,1
1,208	Ohio National Investments, Inc.	10,700	10,900	10,900	11,100	11,400	11,400	11,400	11,400	11.4
1,209	Ohio Public Employees Retirement System	374,155	374,885	374,292	370,184	347,445	351,011	382,976	384,866	384,8
1,210	Ohio Valley Financial Group	12,150	12,025	12,025	12,025	12,025	12,025	12,025	12,025	12,0
1,211	Okasan Asset Management Co., Ltd.	14,200	20,400	20,400	20,400	20,400	0	0	0	7
1,212	Old Mutual Customised Solutions (Pty) Ltd	6,100	6.100	6,100	6,100	12,600	12,600	7,000	12,000	11,0
1,213	Old National Wealth Management	6,046	5,903	6,220	7,192	.0	0	0	0	
1,214	Old Second National Bank	0	0	0	0	0	47	47	47	
1,215	Oliver Luxxe Assets LLC	0	0	0	0	0	0	3,236	3,236	3,2

		1-		Quarter	ly Share Own	ership for Rep	porting Institu	tions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mai-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,216	Omega Advisors, Inc.	630,049	684,649	475,449	272,057	0	0	0	352,621	
1.217	Omnia Family Wealth, LLC	0	0	0	0	0	0	0	1,377	1,37
1,218	Ontario Teachers' Pension Plan Board	69,370	81,694	13.247	5.854	12,047	30,563	9,482	13,263	7,59
1,219	OP Asset Management Limited	23,835	23,835	23,835	24,266	24,266	24,266	24,266	24,266	24,26
1,220	Oppenheimer Asset Management Inc.	85,417	85,361	80,167	62,674	58,125	60,577	59,923	56,588	118,63
1,221	OppenheimerFunds, Inc.	307,210	503,104	717,319	878,826	1,353,460	763,331	23,180	23,217	27,55
1,222	Optimum Investment Advisors, LLC	18,714	18,714	17,179	15,129	9,536	10,086	11,591	11,791	11,44
1,223	Oregon Public Employees Retirement System	80,637	85,537	86,257	89.957	92,943	102,241	52,014	56,961	58,60
1,224	Osborn Williams & Donohoe LLC	2,425	0	0	0	0	0	0	0	
1,225	Osborne Partners Capital Management LLC	37,547	37,512	36,947	0	0	0	D	0	
1,226	Osterweis Capital Management, LLC	0	0	0	0	0	424,403	493,495	441,615	421,57
1,227	Ostrum Asset Management	119,558	216,799	291,335	352,198	241,123	268,116	565,906	843,261	470,45
1,228	Ofter Creek Advisors, LLC	0	0	0	67,000	68,806	0	0	0	
1,229	Offer Creek Management, Inc.	7,003	7,003	4,000	4,000	4,000	4,000	4,000	4,000	4,00
1,230	Oxbow Advisors, LLC	12,052	12,052	12,052	12,807	12,807	6,797	6,797	6,417	6,41
1,231	OxFORD Asset Management	0	0	0	0	0	0	0	0	31,69
1,232	P. J. Schmidt Investment Management, Inc.	16,997	16,877	13,918	12,814	12,499	25,717	26,465	26,847	32,17
1,233	Pacer Advisors, Inc.	0	2,178	5,643	8,975	9,530	10,554	10,492	10,801	11,15
1,234	Pactio Gestion, S.G.I.I.C., S.A.	43,833	43,833	43,743	43,817	43,864	43,813	43,813	43,813	43,81
1,235	Palaedino Asset Management S.A.	0	0	0	3,820	3,820	3,820	3,820	3,820	3,82
1,236	Palladium Partners LLC	10,530	9,990	9,765	9,798	4,353	4,453	4,813	4,603	4,10
1,237	PalmerDodge Advisors, L.L.C.	7,280	7,280	0	0,750	0	0	0	0	4,10
1,238	Paloma Partners Management Company	3,014	27,639	33,150	21,729	19,049	22,564	31,651	25,518	85,04
1,239	PanAgora Asset Management Inc.	214,830	331,027	140,715	148,952	51,880	48,670	28,895	28,737	613,73
1,240	PAR Capital Management, Inc.	187,444	187,444	187,444	187,444	187,444	187,444	187,444	0	013,75
1,241	Para Advisors LLC	0	20,000	0	0	0	0	0	0	
1,242	Paradigm Asset Management Company, L.L.C.	0	20,000	0	0	0	0	0	7,750	6,25
1,243	Parallax Volatility Advisers, L.P.		2.00		and the second second			and the second	143,301	8,96
		226,661	289,065	35,719	375,936	119,403	130,160	139,735		
1,244	Parallel Advisors, LLC			0	0		0	N 7	1,603	1,71
1,245	Parametric Portfolio Associates LLC Parametric Risk Advisors LLC	765,757	804,891	697,321	672,106	796,331	1,017,021	1,139,806	1,259,944	898,52
1,246		2,674	2,674	2,674	2,674	2,674	2,674	2,674	2,674	2,67
1,247	Park Avenue Institutional Advisers LLC	0	3,417	3,378	3,291	3,201	3,211	0	0	
1,248	Park National Bank	5,951	5,884	5,899	5,884	5,851	5,929	5,751	5,751	5,72
1,249	Parkside Financial Bank & Trust	0	0	187	286	115	223	308	393	39
1,250	Parkwood LLC	7,818	0	Q	5,763	5,763	0	0	3,640	14,56
1,251	Parsons Capital Management, Inc.	11,553	11,443	11,443	10,643	10.643	10,643	10,338	10,238	10,23
1,252	PartnerRe Asset Management Company	10,734	9,175	9,194	3,405	3,405	0	0	0	
1,253	Passport Capital LLC	0	0	α	0	.0	0	701,325	200,000	
1,254	Pathstone Federal Street	106	106	α	0	0	0	0	0	1,3)
1,255	Patten & Patten, Inc.	106,566	112,107	124,360	102,528	92,779	90,553	85,593	83,879	87.06
1,256	Patten Group, Inc	36,316	36.316	36,316	36,316	36,316	36,316	36,316	0	
1,257	PDT Partners, LLC	0	129,168	58,166	0.	119,400	135,500	168,800	114,094	139,26
1,258	Peachtree Investment Advisors, Inc.	3,575	3,575	3.500	0	0	0	0	0	
1,259	Peak 6 Capital Management, LLC	99,213	156,790	0	58,580	134,382	296,603	241,016	81,135	97,31
1,260	Peak Asset Management, LLC	0	0	4,018	0	0	0	3,782	3,807	

				Quarter	ly Share Own	ership for Re	porting Institu	ntions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,261	PENN Capital Management Company, Inc.	6,156	0	0	0	Ö	0	Ó	0	0
1,262	Pennsylvania Public School Employees Retirement System	89,253	87,361	57,752	55,772	58,478	60,916	53,389	53,874	62,167
1,263	Penobscot Investment Management Company, Inc.	4,404	4,404	3,904	Ü	0	0	0	0	(
1,264	Pensions Services Limited	37,661	43,661	43,661	41,104	65,247	37,123	37,123	37,123	34,333
1,265	People's Securities, Inc.	4,128	4,746	4,746	4,128	4,018	4,068	818	818	811
1,266	Peregrine Asset Advisers, Inc.	3,410	3,410	α	Ū	0	0	450	0	
1,267	Perella Weinberg Partners Capital Management LP	0	0	0	0	0	0	26,460	32,608	9.17
1,268	Perigon Wealth Management, LLC	9,025	9,025	8,995	8,995	8,995	8,995	8,995	8,995	8,99
1,269	Perkins Coie Trust Company LLC	400	400	400	400	400	400	400	400	400
1,270	Perkins Investment Management LLC	907,034	927,830	924,276	929,338	929,338	929,338	929,338	929,338	929,33
1,271	Personal Capital Advisors Corporation	10,577	15,016	17,957	20,173	40,763	53,160	68,434	76,082	89,89
1,272	PGB Trust & Investments	12,074	13,574	14,509	15,833	15,131	15,131	15,131	15,022	13,22
1,273	PGGM Vermogensbeheer B.V.	419,685	419,685	419,685	639,136	639,136	639,136	639,136	303,977	303,97
1,274	PGIM Investments LLC	0	0	0	0	0	0	0	24,666	
1,275	PGIM Japan Co., Ltd.	600	600	600	600	600	600	600	0	
1,276	Pickering Energy Partners LP	92,665	158,065	251,765	235,465	319,607	373,917	371,117	358,367	391,75
1,277	Picoco, LLC	25,000	6,400	0	109,600	35,100	0	0	0	
1,278	Pictet & Cie (Europe) S.A.	36,060	0	36,130	32,750	0	0	30,700	37,610	79,49
1,279	Pictet Asset Management Ltd.	285,984	278,484	280,484	262,284	266,184	267,884	291,889	287,289	298,48
1,280	Pictet Bank & Trust Ltd.	18,500	18,700	32,300	32,300	8,870	0	0	0	-
1,281	Picton Mahoney Asset Management	0	144,200	229,300	193,813	229,525	262,325	243,163	0	
1,282	Piedmont Investment Advisors, Inc	0	110,275	111,165	112,157	113,907	115,939	105,079	117,589	118,61
1,283	Pier 88 Investment Partners, LLC	0	0	0	0	0	0	0	2,350	4.18
1,284	Piershale Financial Group, Inc.	0	0	0	0	145	145	145	0	4,14
1,285	Pillar Pacific Capital Management, LLC	36,344	35,914	35,849	24,374	53,524	56,319	57,524	58,179	72,48
1,286	PIMCO (US)	171,341	154,613	151,323	119,916	41,745	112,902	0	0	186,23
1,287	Pine River Capital Management, L.P.	293,537	420,850	470,516	339.864	524,926	336,019	82,741	156,133	374,71
1,288	PineBridge Investments LLC	6,377	97,061	248,407	200,753	31,019	76,662	67,594	68,206	69,06
1,289	Pink Capital	2,090	2,090	2,090	2,090	0	0	0	0	0.2,00
1,290	Pinkerton Retirement Specialists LLC	0	25	2,030	0,000	22	0	74	74	
1,291	Pinnacle Associates Ltd.	9,235	8,880	15,051	16,626	98,170	127,455	125,990	126,390	115.74
1,292	Pinnacle Holdings, LLC	155	0,000	0	0,020	0	0	0	0	113,00
1,293	Pioneer Investment Management SGRpA	41,955	41,955	202,502	103,941	113,995	113,995	98,815	34.076	55,75
1,294	Pioneer Investments Austria GmbH	3,300	3,300	3,300	3,300	3,300	3,300	0	24.070	22,13
1,295	Pitcairn	3,177	3,395	0,500	3,300	0,200	0,500	0	0	
1,296	Pittenger & Anderson, Inc.	0	0,393	0	0	0	0	250	0	
1,297	Placemark Investments, Inc.	61,986	61,986	61,986	61,986	61,986	61,986	61,986	0	
1,298	Plain Capital Asset Management Sverige AB	01,200	01,950	01,980	01,980	01,980	5,551	5,340	5,340	
1.299	Plante Moran Financial Advisors, LLC	115	369	592	862	68	220	5,540	58	26
1,300	Platte River Capital, LLC	18,700	11,750	5,950	5,950	5,950	5,950		0	20
1,301	PNC Capital Advisors, LLC	8,818	9,044	8,283	8,543	8,625	8,274	5,950 7,811		P 02
									8,280	8,03
1,302	PNC Wealth Management	187,144	183,644	227,030	241,046	234,619	184,325	180,764	175,903	173,99
1,304	Point72 Asia (Singapore) Pte Ltd				105.616	2 960 774	2 410 757	332,081	224,110	
	Point72 Asset Management, L.P.	1,112,500	2,113,201	773,901	185,616	2,859,774	2,410,252	2,767,957	1,688,902	369,03
1,305	Point72 Europe (London) LLP	0.	0	0	0	0	0	0	124,037	52,8

				Quarter	v Share Own	ership for Rej	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,306	Point72 Hong Kong Limited	3,683	0	0	0	4,100	600	13,400	3,149	2,479
1,307	PointState Capital LP	116,500	116,500	0	0	0	0	1,648,900	2,299,082	491,800
1,308	Popular Asset Management, Inc.	1,220	1,220	1,220	1,220	1,220	1,220	0	0	(
1,309	PPM America, Inc.	504,500	873,300	1,129,300	1,381,400	1,020,500	1.005,700	858,700	861,900	859,30
1,310	Pramerica SGR S.p.A.	0	4,631	4,631	1,750	1,750	0	0	20,606	20,600
1,311	Pielude Capital Management, LLC	2,500	2,987	0	0	65,989	0	8,545	0	2,120
1,312	Prescott Group Capital Management, LLC	0	0	0	0	44,000	44,000	44,000	44,000	44,00
1,313	Princeton Alpha Management LP	0	0	0	22,122	20,583	0	D	0	
1.314	Princeton Portfolio Strategies Group LLC	5,398	4.768	4,575	4,925	0	0	0	0	
1,315	Principal Global Investors (Equity)	638,397	645,888	649,344	662,796	805,027	694,286	757,116	789,477	796,05
1,316	Principal Management Corporation	17,615	14,359	11,863	12,064	12,207	11,763	62,034	26,716	19,78
1,317	Prio Wealth Limited Partnership	14,614	14,364	13,889	11.054	5.804	7,869	7,804	5,804	5,80
1,318	Private Advisor Group LLC	4,006	4,115	3,881	4,275	- 0	4,040	0	4,755	12,60
1,319	Private Capital Advisors, Inc.	48,839	48,739	48,454	33,640	32,515	32,140	32,440	31,880	30,010
1,320	Private Capital Management, Inc. (MN)	0	0	0	9,050	9,850	9,850	9,850	8,050	11,400
1,321	Proficio Capital Partners	0	0	0	15,076	17,833	17,977	15,177	15,201	15.18
1,322	Pro-Financial Assel Management, Inc.	1,490	1,490	1,490	1,490	1,490	200	200	200	200
1,323	ProFund Advisors LLC	150,940	134,125	136,565	143,941	132,771	128,450	108,030	129,544	134,90
1,324	Prospera Financial Services	0	0	150,505	0	0	0	0	3,062	123,30
1,325	Proxy P Management AB	0	0	0	0	0	0	0	5,300	
1,326	Prudential Financial Securities Invt Trust Enterprise Ltd	13,385	17,616	17,616	14,400	20,000	20,000	20,000	20,800	20,80
1,327	Psagot Investment House Ltd.	235	235	235	235	335	20,000	20,000	20,800	20,00
1,328	PSP Investments	175,480	174,780	133,880		81,780		240,780	123,480	126,88
1,329	PT Asset Management, LLC	450			129,780		96,780		and the same	120,00
			0	2,900	6,000	0	0	0	0	
1,330	Public Employees' Retirement Association of CO	276,993	272,065	298,209	296,206	1,031,990	1,026,649	967,334	968,263	968,03
1,331	pulse invest GmbH	0	0	0	0	1,050	1,050	1,050	1,050	1.05
1,332	Putnam Investment Management, L.L.C.	1,439,800	1,620,374	3,112,176	3,547,353	4,112,649	4,162,752	3,410,012	3,643,730	3,962,68
1,333	Putnam Investments Limited	0	0	0	0	0	0	0	73,470	73,47
1,334	Pzena Investment Management, LLC	676	1,716	1,716	980	0	2,635	4,560	0	
1,335	QCI Asset Management Inc.	574	1,601	1,767	665	515	615	615	615	61
1,336	QMA LLC	932,746	654,696	626,596	627,896	627,396	705,856	742,465	1,636,015	1,628,58
1,337	QS Investors, LLC	25,052	10,352	10,352	10,366	12,666	13,366	13,366	11,766	55,26
1,338	QS Legg Mason Global Asset Allocation, LLC	0	0	0	0	6,607	8,165	9,028	9,028	9,02
1,339	Quadrant Family Wealth Advisors	0	1,312	500	528	1,286	1,518	1,678	3,327	3.32
1,340	Quadrature Capital LLP	0	8,334	0	0	0	0	127,128	49,769	68,63
1,341	Quantbot Technologies, LP	0	60,634	59,757	2,409	33,662	8,090	0	1,547	30,13
1,342	Quantitative Investment Management LLC	0	18,600	47,100	41,600	33,200	0	0	8,300	148,00
1,343	Quantitative Systematic Strategies LLC	3,516	13,151	5,026	0	.0	0	24,404	23,447	37,13
1,344	Quantlab Capital Management, LLC	0	0	0	O	0	0	3,219	0	
1,345	QUANTRES ASSET MANAGEMENT Ltd	0	15,100	16,500	37,000	0	0	0	0	27,40
1,346	Quenti Asset Management A/S	0	0	0	.0	5,108	5,108	5,108	5,108	5,10
1,347	Quest Investment Management, LLO	2,774	2,774	0	0	0	0	0	0	
1,348	Quilter Investors Limited	D	0	0.	.0	0	0	28,000	28,700	28,70
1,349	Quotient Investors, LLC	0	0.	5,400	5,400	7,700	0	0	0	13,40
1,350	R. H. Bluestein & Company	4,850	56,550	6,900	.0	0	0	0	11,750	42,90

				Quarter	ly Share Own	ership for Re	porting Institu	ations		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,351	R. M. Davis, Inc.	0	0	ū	D	4,760	4,126	4,126	5,396	4,750
1,352	Rafferty Asset Management LLC	19,565	25,565	O.	4,949	24,131	8,360	17,027	8,863	20,800
1,353	Raiffeisen Kapitalanlage-Gesellschaft mbH	12,100	12,100	14,100	15,400	19,400	20,200	20,400	20,100	20,200
1,354	Rainier Investment Management, LLC	490,100	66,400	45,690	60,580	103,110	82,370	83,240	28,920	26,310
1,355	Rampart Investment Management Company, LLC	0	0	0	0	0	0	14,560	14,513	1,549
1,356	Rand & Associates, LLC	17,219	16,569	16,759	15,374	13,674	18,264	19,504	17,975	17,895
1,357	Ranger Investment Management, L.P.	0	0	0	0	450	860	1,250	1,250	1,403
1,358	Rathbone Investment Management Ltd.	7,156	22,391	20,841	20,841	20,841	19,950	20,160	6,950	6,120
1,359	Rational Advisors, Inc.	146	146	146	146	0	0	2,642	0	
1,360	Raymond James & Associates, Inc.	566,410	630,736	785,427	777,865	1,305,226	1,366,380	1,269,257	1,285,447	1,293,274
1,361	Raymond James Pinancial Services Advisors, Inc.	0	0	59,075	100,790	233,230	168,717	49,448	46,358	29,995
1,362	Raymond James Trust N.A.	31,986	31,607	16,002	18,370	16,644	17,424	17,403	18,231	17,767
1,363	RBC Capital Markets (Canada)	0	0	0	1,944	0	0	0	0	0
1,364	RBC Capital Markets Wealth Management	62,693	101,551	147,912	237,676	126,535	2,373,477	1,676,990	681,405	1,641,223
1,365	RBC Capital Partners	0	30,755	28,154	0	0	0	0	16,765	10,703
1,366	RBC Dominion Securities, Inc.	3,284	2,580	2,299	3,633	3,053	8,887	8,096	10,475	11,099
1,367	RBC Global Asset Management (U,S,) Inc.	387,623	443,403	665,703	621,928	113,423	116,503	334,573	91,863	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1,368	RBC Global Asset Management (UK) Limited	31,007	31,307	31,807	51,607	0	0	0	0	
1,369	RBC Global Asset Management Inc.	584,309	407,774	422,909	166,029	554,529	815,700	664,600	1,205,088	881,894
1,370	RBC Investment Solutions (CI) Limited	0	0	0	13,609	13,609	0	004,000	0	(
1,371	RBC Phillips, Hager & North Investment Counsel Inc.	40	90	40	30,456	39,782	3,365	1,220	675	0
1,372	RBC Private Counsel (USA) Inc.	130	130	130	5,561	5,716	131	631	651	651
1,373	RBC Trust Co (International) Ltd	1,569	1,569	1,569	1,569	0	0	0	0	(
1,374	RBC Wealth Management, International	104,004	77,138	19,751	9,970	22,551	23,469	31,768	22,067	30,308
1,375	Redwood Asset Management Inc.	0	2,190	2,190	3,100	0	0	0	0	30,300
1,376	Regal Investment Advisors, LLC	68	69	69	0	0	0	0	0	(
1,377	Regions Investment Management, Inc.	114,894	80,387	68,654	49,311	44,644	43,696	37,754	33,587	31.241
1,378	Rehmann Financial, LLC	2,820	3,000	3,321	0	0	45,090	3,180	3,495	3,454
1,379	Reilly Financial Advisors, LLC	2,200	130	130	130	130	130	130	130	227
1,380	Reliance Trust Company of Delaware	22,601	21,768	33,214	36,985	40,043	42,312	23,079	33,074	30,947
1,381	Reliant Investment Management, LLC	29,175	28,980	32,255	19,670	19,170	37,075	43,455	44,868	45.918
1,382	Renaissance Technologies LLC	281,300	686,000	269,900	535,600	19,170	0	43,433	0	
1,383	Renta 4 Gestora, S.G.I.I.C., S.A.	1,201	1,201					7 mm . Fr		1,886,800
1,384	Research Affiliates, LLC	1,201	1,201	2,397	2,400	9,614	9,602	9,602	9,602	
1,385	Resona Bank, Ltd.	0	0	3.549	4,617	12,425	14,359	16,256	18,110	7,564
1,386	Reynders, McVeigh Capital Management, LLC	0	0	0	0	0	0	0	0	
1,387	Reynolds Capital Management, LLC	0	0	0					A CONTRACTOR OF THE PARTY OF TH	3,678
1,388	RGT Wealth Advisors	0	0		0	0	400	0	1,200	
				0	0		0	3,334	4,009	(
1,389	RHJ International SA	7,400	7,400	0	.0	7,400	7,400	7,400	7,400	(
1,390	Rhumbline Advisers Ltd. Partnership	797,463	673,167	684,427	703.257	737,519	787,931	826,532	927,323	961,590
1,391	Ringturm Kapitalanlagegesellschaft mbH	19,000	19,000	19,000	19,000	19,000	19,000	19,000	0	(
1,392	Riverhead Capital Management LLC	60,545	59,961	63,699	67,803	57,368	23,265	10,499	8,499	10,795
1,393	Robeco Institutional Asset Management B.V.	296,434	273,525	280,523	22,297	24,981	24,981	24,981	10,142	21,550
1,394	Robshaw & Julian Associates, Inc.	28,685	30,185	33,555	35,930	40,530	40,350	40,600	40,235	40,050
1,395	Roc Capital Management, L.P.	5,526	0	0	0.	0	0	0	0	0

	_			Quarter	v Share Own	ership for Reg	porting Institu	tions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,396	Rock Creek Group, L.P.	0	7,607	7,607	16,255	23,626	23,626	231	Ū.	(
1,397	Rockefeller Capital Management	738,259	839,962	897,686	262,652	22,189	22,189	21,174	21,174	21,183
1,398	Rocky Mountain Advisers LLC	250	250	250	250	250	250	250	250	25
1,399	Rometsch & Moor Limited	0	0	0	0	0	0	0	2,500	2,50
1,400	Ropes & Gray LLP	5,659	5,659	5,659	5,659	5,659	5,659	5,659	0	
1,401	Ropes Wealth Advisors LLC	1,143	912	1,042	1,042	1,112	430	337	337	22
1,402	Rothschild & Co Asset Management Europe SCS	14,000	11,000	11,000	11,000	11,000	11,000	10,000	10,000	10,00
1,403	Rothschild & Co. Bank AG	5,100	0	0	0	0	0	0	0	
1,404	Rothschild Capital Partners, LLC	0	0	0	0	0	0	29,040	29,040	28,85
1,405	Rothschild Investment Corporation	0	0	0	0	3,316	3,316	3,316	3,316	3,31
1,406	Roundtable Investment Partners	.0	0	0	0	0	7,000	7,000	7,000	7,40
1,407	Rowland Carmichael Advisors Inc	0	0	0	0	0	0	0	4,815	
1,408	Royal Alliance Associates, Inc.	1,253	1,253	1,253	1,253	1,253	1,253	0	0	
1,409	Royal Bank of Canada Trust Co (Bahamas) Lid	0	0	0	800	800	800	800	800	80
1.410	Royal London Asset Management Ltd.	0	0	178,492	182,314	123,000	170,203	170,203	170,203	170,20
1,411	RR Advisors, LLC	100,000	125,000	165,000	205,000	145,000	101,000	0	0	
1.412	Russell Investments Limited	5,960	5,480	6,675	181,031	202,583	28,301	26,566	26,040	21,20
1,413	Russell Investments Trust Company	258,038	342,954	469,155	592,538	345,961	333,173	214,381	224,591	163,91
1.414	S.B. Carr Investments, Inc.	1,882	1,892	1.933	2,277	0	0	0	0	
1,415	Saba Capital Management, L.P.	0	0	0	82,000	22,347	16,847	16,847	9,347	4,34
1,416	Sabadell Asset Management, S.A., S.G.I.I.C., Sociedad Uniper	.0	0	0	0	0	7,719	8,957	10,740	9,38
1,417	Sabby Management, LLC	0	90,971	102,300	0	0	0	0	0	
1,418	SailingStone Capital Partners LLC	0	0	0	0	11,267	11,867	11,769	14,529	14,65
1.419	Salem Capital Management, Inc.	26,500	23,600	22,950	23,250	27,650	27,650	27,650	28,550	28,97
1,420	Salem Investment Counselors, Inc.	0	0	0	0	0	0	500	552	
1,421	Salient Advisors, L.P.	8,300	8,300	8,300	8,300	8,300	8,300	8,300	8,300	
1,422	Salient Capital Advisor LLC	94.944	86,840	85,486	15,720	91,284	90,664	78,341	78,341	79,64
1,423	Salient Partners, L.P.	0	0	0	15,720	15,720	15,720	15,720	15,720	15,72
1,424	Salient Trust Co., LTA	5,247	2,625	.0	5,725	24,550	37,550	37,580	39,730	41,78
1,425	Sanisung Asset Management (New York), Inc.	27,550	35,080	0	0	0	0	0	0	
1,426	Samsung Asset Management Co., Ltd.	27,584	35,080	163	2,391	1,967	1,782	3,643	9,148	7,97
1,427	San Francisco Sentry Investment Group	12,550	12,591	12,190	12,398	12,276	11,178	8,502	8,102	7,35
1,428	Sand Hill Global Advisors, LLC	34,188	34,074	35,315	35,438	0	0	0	0	
1,429	Sanders Morris Harris LLC.	2,445	995	2,045	945	0	0	0	0	
1,430	Sandy Spring Bank	7,995	8,026	8,220	9,309	7,711	7,975	7,905	8,066	8,40
1,431	Saniam Investment Management (Pty) Ltd.	54,008	52,417	52,417	8,790	89,164	8,313	8,289	8,239	8,09
1,432	Saniam Investments UK Limited	29,973	29,973	29,973	91,716	39,339	130,600	130,934	93,084	91,59
1,433	Santander Asset Management - S.G.F.I.M., S.A	1,277	1,277	1,277	1,277	1,277	1,277	0	0	
1,434	Santander Asset Management UK Limited	1,858	1,858	1,858	1,129	0	0	0	0	
1,435	Santander Asset Management OK Chimed Santander Private Banking Gestion, S.A., S.G.I.I.C.	0	0	0	4,400	4,404	4,399	4,399	4,399	4,39
1,436	Santander Towarzystwo Funduszy Inwestycyjnych S.A.	1,114	0	0	0	0	4,399	4,399	4,255	4,35
1,437	Sarasin & Partners LLP	1,218,123	1,139,729	1,073,239	1,608,962	1,574,089	1,348,712	1,251,023	1,342,150	966,67
1,438		1,218,123	1,139,729	1,073,239	1,600	1,2/4,089	1,348,712	0.251,023	1,342,130	200,01
1.400	Saturna Capital Corporation	6,000								
1,439	Savilr Capital LLC		6,000	6,000	6,000	6,000	0	0	0	

1,441 S 1,442 S 1,443 S 1,444 S 1,446 S 1,447 S 1,448 S 1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,455 S 1,456 S 1,457 S 1,458 S 1,458 S 1,459 S	Schonfeld Group Holdings LLC Schonfeld Strategic Advisors LLC Schoner Investment Group, LLC Schroder Investment Management (Hong Kong) Ltd. Schroder Investment Management Ltd. (SIM) Schroder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scotia Administratora General de Fondos Chile S.A.	31-Mar-15 0 0 12,500 0 0 84,200 771,505 22,500 0	30-Jun-15 0 0 7,500 0 4,857 3,700 54,900 817,805	30-Sep-15 4,046 0 5,000 0 0 0 5,150	9,200 0 2,500 26,685 147,053 879,555	9,200 37,966 2,500 0 407,591	9,200 9,642 2,500 0	9,200 27,047 2,500	9,200 15,210 2,500	31-Mar-17 9,200 79,680 2,500
1,442 S 1,443 S 1,444 S 1,446 S 1,446 S 1,446 S 1,447 S 1,448 S 1,450 S 1,451 S 1,452 S 1,454 S 1,455 S 1,456 S 1,456 S 1,457 S 1,458 S 1,458 S 1,459 S	Schonfeld Strategic Advisors LLC Schooner Investment Group, LLC Schroder Investment Management (Hong Kong) Ltd. Schroder Investment Management Ltd. (SIM) Schröder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc. Sciencast Management LP Scoria Capital Partners, LP Scotia Administratoria General de Fondos Chile S.A.	0 12,500 0 0 0 84,200 771,505 22,500	7,500 0 4,857 3,700 54,900	5,000 0 0	2,500 26,685 147,053	37,966 2,500 0	9,642 2,500 0	27,047 2,500	15,210	79,680
1,443 S 1,444 S 1,445 S 1,446 S 1,447 S 1,448 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schooner Investment Group, LLC Schroder Investment Management (Hong Kong) Ltd. Schroder Investment Management Ltd. (SIM) Schroder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schweizerische Nationalbank Schweizerische Capital Management, Inc. Sciencast Management LP Scoria Capital Partners, LP Scotia Administratora General de Fondos Chile S.A.	12,500 0 0 0 84,200 771,505 22,500	7,500 0 4,857 3,700 54,900	5,000 0 0	2,500 26,685 147,053	2,500 0	2,500 0	2,500		
1,444 S 1,445 S 1,446 S 1,447 S 1,448 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schroder Investment Management (Hong Kong) Ltd. Schroder Investment Management Ltd. (SIM) Schroder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scotia Administratoria General de Fondos Chile S.A.	0 0 0 84,200 771,505 22,500	0 4,857 3,700 54,900	0 0 0	26,685 147,053	0	0		2,500	7.500
1,445 S 1,446 S 1,447 S 1,448 S 1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schroder Investment Management Ltd. (SIM) Schroder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scotia Administratoria General de Fondos Chile S.A.	0 0 84,200 771,505 22,500	4,857 3,700 54,900	0	147,053			0		2,30
1,446 S 1,447 S 1,448 S 1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schröder Investment Management North America Inc. Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scotia Administratoria General de Fondos Chile S.A.	0 84,200 771,505 22,500	3,700 54,900	0	The second second	407.591	252 020		0	
1,447 S 1,448 S 1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scoria Administratoria General de Fondos Chile S.A.	84,200 771,505 22,500	54,900		970 555		353,079	323,290	210,742	262,64
1,447 S 1,448 S 1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schwartz Investment Counsel, Inc. Schweizerische Nationalbank Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scoria Administratoria General de Fondos Chile S.A.	771,505 22,500		5 150	0123222	135,968	89,360	54,990	10,800	
1,449 S 1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Schwerin Boyle Capital Management, Inc Sciencast Management LP Scoria Capital Partners, LP Scotia Administradora General de Fondos Chile S.A.	22,500	817,805	2120	5,750	6,250	6,250	3,750	3,750	3,75
1,450 S 1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Sciencast Management LP Scoria Capital Partners, LP Scotia Administradora General de Fondos Chile S.A.			906,405	922,905	1,320,105	1,425,105	1,504,505	1,542,005	1,980,40
1,451 S 1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Scoria Capital Partners, LP Scotia Administratora General de Fondos Chile S.A.	0	22,500	22,500	0	0	D	0	0	
1,452 S 1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Scotia Administradora General de Fondos Chile S.A.		0	0	23,400	16,500	0	0	0	4,47
1,453 S 1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S		.0	0	41,500	127,206	42,100	0	0	10,000	
1,454 S 1,455 S 1,456 S 1,457 S 1,458 S 1,459 S		0	515	717	0	.0	O	0	0	
1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Scotia Capital Inc.	3,865	14,363	9,424	10,924	30,428	42,908	45,631	62,364	72,25
1,455 S 1,456 S 1,457 S 1,458 S 1,459 S	Scott & Selber, Inc.	0	0	0	0	0	0	0	23,387	23,34
1,456 S 1,457 S 1,458 S 1,459 S	Scottish Mutual Investment Managers Ltd.	0	Ō	5,584	Ó	Ó	0	0	0	
1,457 S 1,458 S 1,459 S	Scout Investments, Inc.	11,926	60,061	60,040	60,385	11,908	11,039	8,648	9,048	8,54
1,458 S	Sculptor Capital Management, Inc.	0	0	0	0	0	0	1,643,044	D	
1,459 \$	SeaBridge Investment Advisors LLC	400	400	400	400	400	500	500	500	40
	Searle & Company	12,745	12,745	10,720	12,595	12,595	0	12,595	12,475	10,52
The second second	SeaStone Capital Management, L.P.	155,967	0	0	0	0	0	0	0	
1,461 5	Sealown Holdings Pte, Ltd.	200,000	200,000	279,240	377,240	0	0	0	0	
	SEB Investment Management AB	25,620	24,920	20,420	19,820	45,968	48,168	50,968	0	38,85
	SECOR Capital Advisors, LP	0	0	10,985	0	0	0	26,289	0	5.5195
	Sector Omega ASA	0	.0	0	0	0	23,500	23,500	28,900	28,90
	Securian Asset Management, Inc.	47,253	48,058	47,573	48,929	49,290	49,982	53,996	55,936	56,18
	Security Kapitalanlage AG	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,540	5,54
	Security National Trust Company	2,323	2,323	2,323	2,323	2,038	2,138	2,138	2,138	2,13
	Segall Bryant & Hamill, LLC	12,284	12,284	11,784	11,784	11,784	11,704	11,911	11,719	11,09
	Segantii Capital Management Limited	0	0	0	403,594	0	0	0	0	7.139.2
	Segment Wealth Management, LLC	8,171	7,061	6,761	5,326	0	3,989	3,989	4,439	3,63
	SEI Investments Canada	0,171	5,512	7,012	6,512	6,412	6,612	6,512	6,812	6,71
	SEI Investments Management Corporation	229,876	158,407	159,479	51,890	40,855	110,645	221,318	349,172	472,03
3.00	Seizert Capital Partners, L.L.C.	3,249	3,249	0	0	0	0	3,249	3,249	472,02
	Selia SGR. S.p.A.	4,900	4,900	2,500	2,500	0	0	0.	0,249	
	Sentinel Asset Management, Inc.	0	0	0	0	0	0	0	0	45,00
	Sentry Investment Management, L.L.C.	29,103	38,474	39,446	39,431	38,729	38,729	38,729	37,547	36,91
	Seven Bridges Advisors LLC	29,103	0	0	0	3,250	0	4,471	5,024	39,21
	Seven Eight Capital, LP	0	2,155	7,555	0	8,855	0	13,855	15,955	82,55
	Seven Investment Management LLP	0	1,243	0	0	0	0	12/022	12,933	02,33
	Seven frivestnent Wanagement EEF SevenBridge Financial Group, LLC	0	1,243	0	0	0			38,869	99
	SG Americas Securities, L.L.C.	93,207	95,942	100	283,659		23,482	38,869		
		93,207	95,942	407,174	283,059	153,982	237,441	129,990	99,224	85,55
	Shapiro Capital Management LLC Sharkey Howes & Javer Inc	0	53	11,500			106	0	0	
		0	33	106	106	306	106		0	6.76
1,484 5	Sheaff Brock Investment Advisors, LLC	0	0	0	5,856	6.056	6,031	0	()	5,45

				Quarter	ly Share Own	ership for Rej	oorting Institu	itions		
14	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,486	Shelton Capital Management	25,090	25,090	25,090	27,090	27,090	27,090	27,090	27,390	27,390
1,487	Shikiar Asset Management, Inc.	40,900	39,725	31,325	33,100	40,750	45,550	45,650	92,880	86,105
1,488	Shinko Asset Management Co., Ltd.	1,574	1,471	1,471	1,471	1,329	1,329	1,329	1,329	α
1,489	Siemens Fonds Invest GmbH	3,757	3,757	3,757	3,725	3,725	2,423	2,794	2,756	2,799
1,490	Sigma Investment Counselors, Inc.	36,521	35,801	32,836	29.708	42,082	41,363	40,788	41,157	36,769
1,491	Sigma Planning Corporation	3,342	3,536	0	0	0	0	0	0	0
1,492	Signator Financial Services, Inc.	377	377	0	0	0	300	317	367	341
1,493	Signature Financial Management Inc.	2,850	2,850	0	0	0	0	0	0	0
1,494	Signaturefd, LLC	18,321	18,190	1,395	1,381	2,056	2,282	2,152	0	0
1,495	Silvant Capital Management LLC	55,209	56,116	56,095	54,986	54,986	53,620	52,527	48,927	48,927
1,496	Silvercrest Asset Management Group LLC	40,853	73,627	41,323	67,844	48,098	116,934	116,680	115,875	116,256
1,497	Simplex Trading, LLC	49,250	22,185	70,823	100	848	0	6,607	20,910	84,199
1.498	Sinclair (Donald R)	14,406	14,406	14,406	14,406	14,406	14,406	14,406	14,406	22,712
1,499	Siphron Capital Management	7,910	7,910	7,910	7,910	7,910	7,910	0	0	0
1,500	SIR Capital Management, L.P.	0	0	0	0	490,500	0	653,996	531,160	213,060
1,501	Sjunde AP-fonden	0	0	0	0	0	0	0	504,337	524,337
1,502	Skylands Capital, LLC	4,075	3,775	3,475	2,275	2,275	2,275	2,275	2,275	2,225
1,503	Smith Asset Management Group, LP	79,200	0	0	576	0	à	0	0	0
1,504	Smith Hayes Advisers, Inc.	8,427	8,327	8,027	7,159	8,159	8,159	8,159	0	0
1,505	Smith, Moore & Company	6,310	6,310	6,310	6,310	0	0,120	0	0	0
1,506	Smithfield Trust Company	3,260	3,260	3,260	3,960	3,960	3,860	3,800	3,800	3,400
1,507	Snow Capital Management, L.P.	0	0	0	0	0	39,819	66,201	66,201	66,201
1,508	Société Générale Private Banking	0	0	0	0	0	237,441	237,441	237,441	237,441
1,509	Sonora Investment Management, LLC	0	0	65	21	21	21	237,441	237,441	21
1,510	South Dakota Investment Council	34,400	19,700	19,700	40,000	773,490	759,570	763,370	618,844	564,664
1,511	Southport Management, L.L.C	0 0	0	19,700	40,000	0 0	0	10,000	5.000	504,604
1,512	Sowell Management Services	0	0	0	0	0	0	0.000	981	Ö
1,513	Spears Abacus Advisors LLC	6,095	6,095	0	0	0	0	0	961	0
1,514	Spectrum Advisory Services, Inc.	18,873	17,523	16,523	16,523	11,600	11,600	11,600	11,600	11,600
1,515	SpiderRock Advisors LLC	0	0	0	10,323	0	0	0	0 0	136
1,516	Spinnaker Trust	6,018	6.018	6,018	6,018	5,243	5,243	5,243	7.243	7,143
1,517	Spot Trading LLC	47,839							211,902	42,475
1,518	Squarepoint Capital LLP	47,839	28,146	15,038	21,701	193,038	179,654	216,030		
		0		11,514				0	15,636	93,408
1,519	SRS Capital Advisors, Inc		0	0	0	0	0	10.0	95	94
1,520	SSI Investment Management Inc.	4,635	3,820	3,820	0	0	0	12 200	0	0
1,521	St. Bedrijfstakpensioenfonds voor de Media PNO	17,700	17.700	17,700	17,700	13,300	13,300	13,300	13,300	13,300
1,522	St. Galler Kantonalbank AG	209	296	481	481	481	481	481	481	481
1,523	St James's Place Wealth Management Plc	24,066	24,066	30,142	30,142	30,142	30,142	47,496	47,496	47,496
1,524	STAAR Financial Advisors, Inc.	700	400	400	400	0	0	0	0	C
1,525	Staley Capital Advisers, Inc.	2,454	0	0	0	0	0	0	0	0
1,526	StanCorp Investment Advisers, Inc.	100	100	100	100	100	100	100	100	(
1,527	Standard Life Investments (USA) Ltd.	1,943,382	1,721,937	1,661,709	0	0	0	0	0	(
1,528	STANLIB Asset Management Ltd.	45,819	45,819	45,819	45,819	45,819	45,819	0	0	- (
1,529	StarCapital AG	.0	0	0	0	0	1,600	1,600	5,200	5,200
1,530	Starfire Investment Advisers, Inc	2,655	2,655	0	0	0	0	0	0	

				Quarter	y Share Own	ership for Rej	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,531	State of Wisconsin Investment Board	1,007,309	909,882	839,292	762,362	661,192	669,632	646,132	630,639	696,411
1,532	State Street Global Advisors (France) S.A.	240,939	247,663	247,119	245,940	207,648	72,086	56,887	35,070	31,686
1,533	State Street Global Advisors (Japan) Co., Ltd.	24,600	24,600	24,600	24,600	24,600	24,600	24,600	26,527	26,527
1,534	State Street Global Advisors (UK) Ltd.	207,585	213,144	241,135	388,399	406,776	388,404	437,349	467,574	490,580
1,535	State Street Global Advisors (US)	23,572,477	22,853,570	23,029,495	24,029,781	24,813,542	24,656,263	26,644,260	28,405,456	28,422,635
1,536	State Street Global Advisors Ltd (Canada)	24,513	26,902	57,333	49,050	94,505	55,466	54,654	55,788	60,999
1,537	State Teachers Retirement System of Ohio	307,807	310,938	313,932	314,184	315,562	320,622	338,160	333,987	325,846
1,538	Stelac Advisory Services LLC	0	0	0	0	0	2,200	2,200	2,200	2,200
1,539	Stelliam Investment Management, LP	707,500	862,500	1,640,000	2,895,000	3,635,000	3,275,000	2,810,000	1,582,500	762,500
1,540	Stephens Capital Management	3.371	2,613	0	0	O	0	4,861	5,557	40,918
1,541	Sterling Capital Management, LLC	119,332	128,435	129,159	113,177	108,628	105,055	98,085	134,857	112,921
1,542	Sterling Investment Advisors, Ltd.	0	0	0	0	0	0	0	500	500
1,543	Sterne Agee Asset Management, Inc.	22,391	55,814	290	8,889	12,708	11,420	11,420	11,420	11,420
1,544	Sterne Agee Investment Advisory Services	.0	0	0	0	0	375	375	375	375
1,545	Stevens Capital Management LP	17,786	0	23,212	0	0	0	17,078	56,822	91,632
1.546	Steward Partners Investment Advisory, LLC	0	0	0	0	0	0	0	1,040	7,164
1,547	Stewart and Patten Co., L.L.C.	0	0	0	0	0	0	0	0	5,818
1,548	Stewart Investors	14,880	14,880	14,880	14,880	0	0	0	0	Ď
1,549	Stichting Pensioenfonds SABIC	7,600	0	0	0	0	0	0	0	0
1,550	Stifel Nicolaus Investment Advisors	33,813	34,200	49,350	44,229	108,956	109,135	137,935	165,004	153,942
1,551	Stillwater Investment Management, LLC	12,426	12,702	13,108	12,247	14,728	15,712	15,428	15,186	15,699
1,552	Stoker Ostler Wealth Advisors, Inc.	1,250	1,250	1,250	1,700	1,000	500	500	500	0.
1,553	Stone Ridge Asset Management LLC	D	1,600	1,600	1,600	600	600	600	0	0
1.554	Stonebridge Capital Advisors, LLC	29,684	30,574	38,162	29,726	25,831	27,136	27,331	25,149	24,649
1,555	Stonehage Fleming Financial Services Holdings, Ltd.	0	0	.0	0	0	0	1,505	0	0
1,556	Stonemark Wealth Management	.0	0	Ď.	0	0	.0	115	113	0
1,557	StoneRidge Investment Partners, LLC	0	0	0	169,655	4,430	4,430	0	0	0
1,558	Storebrand Kapitalforvaltning AS	150,327	150,327	124,041	124,041	117,366	111,885	120,955	127,495	136,633
1,559	Strategic Investment Partners, Inc.	0	0	.0	0	0	0	3,521	0	Ω
1,560	Strategic Wealth Advisors Group, LLC	0	0	0	0	0	0	0	0.	3,293
1,561	Stratos Wealth Partners, Ltd.	0	0	0	0	0	0	3,896	0	0
1,562	Stratton Management Company	10,400	5,600	5,700	5,250	5,250	5,250	5,250	5,250	5,250
1,563	Stux Capital Management, LLC	9,800	9,800	9,800	9,800	9,800	0	0	0	0
1,564	Suffolk Capital Management, LLC	167,226	164,492	98,400	126,894	0	0	0	39,739	38,201
1,565	Sullivan, Bruyette, Speros & Blayney, LLC	107	107	151	50	58	0	0	0	.0
1,566	Sumitomo Life Insurance Co.	23,598	21,000	20,479	20,006	19,499	18,781	16,748	17,128	16,128
1,567	Sumitomo Mitsui DS Asset Management Company, Limited	39,865	38,236	38,431	37,206	39,128	39,709	39,669	42,273	46,531
1,568	Sumitomo Mitsui Trust Asset Management Co., Ltd.	62,100	31,474	31,474	31,474	31,474	31,512	31,512	31,512	33,612
1,569	Sumitomo Mitsui Trust Bank, Limited	1,700,512	1,623,627	1,654,417	1,674,642	1,695,065	1,414,670	1,886,788	1,545,379	1.561,618
1,570	Summit Advisor Solutions	0	0	.0	0	0	0	1,906	0	0
1,571	Summit Capital Management, L.L.C.	64,060	64,270	60,115	45,540	38,350	38,350	38,350	38,350	38,350
1,572	Summit Financial Wealth Advisors, Llc	0	0	0	0	0	0	0	8,940	8,640
1,573	Sun Life Assurance Company of Canada (Toronto)	0	0	0	0	0	0	0	299	3,301
1,574	SunAmerica Asset Management, LLC	216,840	216,982	203,518	208,465	206,733	210,345	220,698	223,201	223,103
1,575	Sunnymeath Asset Management, Inc.	0	O.	- D	6,850	7,210	17,210	18,510	18,910	18,910

		1		Quarter	ly Share Own	ership for Re	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,576	SunTrust Bank	20,496	22,259	18,574	23,384	24,645	25,894	24,509	25,652	10,773
1,577	Susquehanna International Group, LLP	1,718,390	1,703,898	964,950	866,837	238,726	5,019	0	0	326,301
1,578	Swedbank Robur Fonder AB	139,567	139,567	128,705	136,284	132,137	111,383	96,745	102,116	74,248
1,579	Swiss Life Asset Management	2,941	3,141	3,441	2,968	7,710	7,302	3,360	9,045	11,68
1,580	Swisscanto Fondsleitung AG	133,334	168,134	168,134	168,134	168,134	158,134	168,134	168.134	168,134
1,581	Symphonia SGR Spa	11,054	0	0	0	0	0	0	12,083	
1,582	Synovus Trust Company, N.A.	1,846	1,846	1,846	1,266	1,266	1,266	1,295	1,382	22
1,583	Syntal Capital Partners, LLC	4,964	4,950	4.950	4,950	4,950	4,950	4,987	49,877	4,950
1,584	Systematic Financial Management, L.P.	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300	6,300
1,585	T. Rowe Price Associates, Inc.	6,877,484	6,730,566	4,840,936	4,043,593	3,227,880	1,664,789	1,530,719	1,063,883	1,044,633
1.586	T. Rowe Price International (UK) Ltd	2,896	6,898	4,291	0	0	0	0	0	
1,587	Talara Capital Management LLC	84,088	65,258	115,363	148,563	0	Ó	ō	0	
1,588	Tangerine Investment Management Inc.	2,106	2,368	2,368	2,478	2,478	2,678	2,678	2,678	2,67
1,589	Tarbox Family Office, Inc.	173	186	154	222	154	154	167	167	16
1,590	Taurus Assel Management, LLC	32,170	32,020	32,020	27,316	27,216	27.116	26,056	23,476	22,876
1,591	TBP Advisors, Ltd.	71,192	0	a	0	0	0	0	0	
1,592	TCI Wealth Advisors, Inc.	371	371	333	334	263	263	386	263	26.
1,593	TCW Asset Management Company LLC	142,700	34,100	34,750	35,200	35,600	37,450	40,300	41,200	
1,594	TD Asset Management Inc.	610,067	1,606,312	2,074,387	2,143,897	894,575	441,000	427,288	1,017,568	1,018,03
1,595	TD Asset Management USA, Inc.	79,288	132,032	134,662	131,285	134,986	125,729	123,233	115,362	112,01
1,596	TD Securities, Inc.	192,419	228,710	14,417	29,944	17,792	17,187	22,232	98,285	152,84
1,597	TD Waterhouse Private Investment Counsel, Inc.	186,918	392,110	421,884	360,472	371,485	47,333	26,114	21,204	21,14
1.598	Teacher Retirement System of Texas	718.529	600,348	607,711	357,887	217,972	226,692	41,277	465,399	725,32
1,599	Team Financial Strategies	0	0	0	0	1,056	1,056	1,056	1,056	1,05
1,600	Teilinger Capital Lld	22,465	Ô	0	0	0	0	0	0	1,00
1,601	Tellsons Investors LLP	3,700	3,700	3,700	3,700	3,700	1,800	2,700	5,400	1,60
1,602	Temasek Holdings Pte, Ltd.	450,436	704,336	0	0	0	0	0	0	1,00
1,603	Templeton Investment Counsel, L.L.C.	1,403	1,886	2,537	2,875	3,565	1,626	1,626	2,139	2,13
1,604	Tennessee Consolidated Retirement System	371,980	475,449	474,149	467,084	494,068	503,190	532,545	476,306	409,03
1,605	Tetrem Capital Management Ltd.	791,217	784,894	760,955	528,744	0	0	0	0	402,00
1,606	Texan Capital Management, Inc.	35,930	35,795	35,795	35,022	35,472	35,734	45,037	45,232	46,27
1,607	Texas Capital Bancshares	4,891	4,831	5,747	0	0	33,734	0	0	40,27
1,608	Texas Permanent School Fund	189,677	184,926	181,153	178,378	175,342	165,604	168,326	167,426	163,32
1,609	Texas Yale Capital Corp.	27,169	27,169	25,014	22,564	21,909	21,909	21,909	21,909	20,48
1,610	TFS Capital LLC	27,109	257	25,014	257	732	6,771	21,909	21,909	20,40
			4.316		0	0	0,771	3,293	3,293	
1,611	The Burney Company	3,721	4,216	3,366	0	0	3,773	3,789	3,293	
1,613	The CAPROCK Group, Inc.	250,000	250,000		250,000	0	5,775	3,769	0	
	The Chubb Corporation		250,000	250,000	250,000	0.	0	0	0	
1,614	The Colony Group, LLC	0	-	85	7					
1,615	The Commerce Trust Company	48,029	51,263	48,667	48,449	32,665	32,079	27,916	28,323	29,35
1,616	The Dai-ichi Life Insurance Company, Limited	0	0	0	0	0	0	0	51,528	94,44
1,617	The First National Bank in Sioux Falls	1,070	1,070	1,070	1,070	1,070	1,070	1,070	0	
1,618	The Goff Financial Group	0	0	0	0	0	0	0	0	9,24
1,619	The Haverford Trust Company	3,594	3,594	3,629	0	0	0	3,594	3,594	
1,620	The Index Group, Inc.	.0	0	93	120	132	102	139	234	420

				Quarter	ly Share Own	ership for Re	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,621	The MassMutual Trust Company, FSB	50	50	50	81	50	0	0	0	0
1,622	The Mitchell Group, Inc.	624,900	692,470	687,519	674,490	978,388	1,060,318	1,078,248	842,198	770,518
1,623	The Pacific Center for Financial Services	0	0	0	0	.0	0	0	21	21
1,624	The Patten Group, Inc.	36,251	38,113	38,440	29,893	27,748	27,499	21,504	21,070	20,996
1,625	The Pennsylvania Trust Company	3,893	8,598	5,684	5,684	5,684	5,786	4,350	4,350	3,684
1,626	The Private Trust Company, N.A.	7,131	6,927	6,992	4,120	0	0	0	Ó	
1,627	The Regents of the University of California	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,602	4,60
1,628	The Retirement Systems of Alabama	649,163	646,791	701,417	681,857	810,316	869,411	865,582	829,141	804.993
1,629	The Trust Company (Manhattan)	2,514	1,814	1,814	1,814	1,814	1,814	1,814	1,814	1,814
1,630	The Trust Company of Vermont	3,964	3,964	4,580	2,830	2,764	2,694	3,156	3,431	3,300
1,631	The Vanguard Group, Inc.	30,061,346	30,308,218	30,836,778	31,667,403	32,334,945	33,101,715	36,436,324	37,643,758	38,870,940
1,632	The Welch Group, LLC	238	0	0	0	0	0	0	0	(
1,633	THEAM	32,956	27,066	26,683	31,020	34,219	33,992	37,439	24,805	20,280
1,634	Thesis Asset Management Limited	0	0	0	0	0	0	0	56,469	56,469
1,635	ThinkCapital Asset Management B.V.	4,259	4,259	3,866	5,206	4,792	0	0	0	(
1,636	Thompson, Davis & Co., Inc. (Asset Management)	235	235	276	199	385	385	385	898	76
1,637	Thompson, Siegel & Walmsley LLC	1,325	1,325	1,325	1,325	-0	0	54	143	
1,638	Thrivent Asset Management, LLC	12,536	13,236	13,922	14,626	14,936	15,886	67,706	69,126	701,060
1,639	Tide Point Capital Management, LP	0	Ó	0	0	0	0	400,000	0	(
1,640	Tilney Investment Management	0	18,263	17,028	16,458	0	0	Ø	0	0
1,641	Timber Hill LLC	21,146	32,301	23,117	0	0	0	0	15,494	10,799
1.642	TNB Financial Services, Inc.	2,115	0	0	0	0	.0	0	0	
1,643	Tocqueville Asset Management LP	67,485	78,300	99,410	110,545	87,685	88,731	79,128	60,689	60,313
1,644	Tokio Marine Asset Management Co., Ltd.	19,160	20,219	16,343	14,710	16,337	16,053	14,720	10,940	8,496
1,645	Tompkins Trust Company	1,145	1,045	1,045	1.045	0	905	0	0	
1,646	Tontine Asset Management, LLC	85,855	85,855	84,780	139,780	38,665	31,295	31,295	20,000	20,000
1,647	Tortoise Capital Advisors, LLC	422,578	411,686	412,192	442,549	358,024	341,785	306,825	306,173	315,749
1,648	Tortoise Investment Management, LLC	700	700	700	700	700	700	700	1,026	1,026
1,649	Towarzystwo Funduszy Inwestycyjnych Allianz Polska SA	1,742	1.052	1,052	1,052	1,052	0	0	0	(
1,650	Tower Bridge Advisors, Inc.	49,073	49,438	40,908	20,288	17,185	13,310	16,200	14,850	13,513
1,651	Tower Research Capital LLC	534	863	760	1	0	1,542	3,223	23,161	8,443
1,652	Tradewinds Capital Management, LLC	.0	0	0	a	0	0	0	0	.20
1,653	Tradeworx Inc.	3,768	3,768	3,768	3,768	3,768	3,768	0	0	- 1
1,654	Trafelet Brokaw Capital Management, L.P.	Ō	0	0	0	Ü	1,000	0	0	
1,655	Transamerica Financial Advisors, Inc.	15	15	15	15	300	0	0	0	
1,656	Fransparent Value, LLC	87.746	81,120	0	0	0	0	0	0	
1,657	Tredje AP Fonden	92,241	33,735	33,448	34,044	48,671	42,474	36,126	33,317	47,559
1,658	Treetop Asset Management S.A.	0	0	0	56,335	59,335	44,235	35,955	35,955	35,95
1,659	Trevor Stewart Burton & Jacobsen Inc.	18,180	17,775	14,650	9.800	9,800	9,800	9,800	9,800	9,800
1.660	Trexquant Investment LP	33,300	41,100	58,100	19,827	0	0	0	17,700	15,30
1,661	Triangle Securities Wealth Management, Inc.	13,029	12,479	11,522	8,745	8,635	6,400	6,205	6,205	6,16
1,662	Trilogy Global Advisors, LP	500,937	0	0	0	0	D	0	0	
1,663	Trinity Fiduciary Partners, LLC.	4,133	4,133	0	0	0	O	0	0.	
1.664	Trust & Investment Advisors, Inc.	0	0	0	13,800	21,414	21,296	21,246	21,446	20,850
1,665	Trust Co	0	0	0	0	0	0	0	2,900	

				Quarter	ly Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mai-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mai-17
1,666	Trust Co of Sterne Agee, Inc.	0	23,123	0	0	0	0	0	O	
1,667	Trustmark Investment Advisors, Inc.	10,277	10,257	9,192	0	0	0	0	0	
1,668	Tudor Investment Corporation	2,659	18,537	22,262	13,740	0	14,291	70,481	0	53,680
1,669	Turner Investment Partners, Inc.	Ò	0	0	0	18,000	0	0	0	
1,670	Turile Creek Management, LLC	74,627	76.227	94,027	83,472	88,372	86,272	99,372	96,925	101,225
1,671	Tuttle Tactical Management, LLC	0	0	0	0	0	0	2,847	0	1
1,672	Twin Tree Management, LP	0	6,041	0	6,531	4,624	60,353	0	53,398	91,310
1,673	Two Sigma Investments, LP	D	11,110	5,845	463,363	471,352	0	3,979	7,946	5,319
1,674	Tyers Asset Management LLC	0	0	0	0	0	0	0	9,464	11,95
1,675	Tyrus Capital S.A.M.	643,000	0	Q.	0	120,000	0	0	0	
1,676	U.S. Bancorp Asset Management, Inc.	499,465	522,570	494,537	370,823	364,357	362,327	336,404	273,667	270,065
1,677	U.S. Global Investors, Inc.	0	3,000	0	0	0	0	. 0	0	1
1,678	UBS (Bahamas) Ltd.	0	0	2,470	2,470	2,470	2,470	2,470	2,470	2,470
1,679	UBS (Luxembourg) S.A.	0	0	0	0	0	0	0	0	2,300
1,680	UBS Asset Management (Americas), Inc.	384,572	395,745	268,655	110,778	119,616	129,163	193,442	154,442	299,300
1,681	UBS Asset Management (Australia) Ltd.	.0	0	0	0	0	0	0	461	540
1,682	UBS Asset Management (Deutschland) GmbH	0	0	0	0	D	0	0	0	26,400
1,683	UBS Asset Management (Switzerland)	924,248	928,383	873,697	768,454	762,232	758,938	816,632	824,731	1,042,99
1,684	UBS Asset Management (UK) Ltd.	304,258	303,381	317,600	325,169	357,772	375,562	402,729	403,046	1.548,961
1,685	UBS Financial Services, Inc.	5,999,160	4,788,806	3,299,645	3,272,309	2,508,201	2,351,654	2,405,447	2,298,376	1,998,823
1,686	UBS Gestion, S.G.I.I.C., S.A.	2,751	2,751	1,250	7,250	9,837	6,103	4,853	6,109	5,10
1,687	UBS O'Connor LLC	82,344	116,322	111,971	0	117,488	220,861	322,098	103,180	142,095
1,688	UBS Switzerland AG	200	0	0	0	0	0	0	0	1
1,689	UniCredit Bank AG	6,120	6,120	6,120	5,901	11,802	5,901	6,029	6,029	6,029
1,690	Union Bank & Trust Company (Nebraska)	8,304	7,698	4,498	2,404	329	329	329	14,329	14,329
1,691	Union Investment Luxembourg S.A.	12,164	12,164	14,081	15,461	9,353	9,841	10,694	22,323	22,32
1,692	Union Investment Privatfonds GmbH	698,414	698,414	679,858	709,290	687,127	830,167	1.027,157	1,230,614	1,248,143
1,693	United Asset Strategies, Inc.	2,390	0	0	0	0.	3,770	0	0	1
1,694	United Capital Financial Advisers, LLC	135,489	134,971	133,913	104,234	101,639	106,130	105,323	100,973	94,489
1.695	Universal-Investment-Gesellschaft mbH	4,600	4,600	4,600	5,900	0	16,000	5,700	15,500	
1,696	UOB Asset Management Ltd.	0	0	0	0	0	40,100	40,100	2,500	2,50
1.697	URAM SA	2,450	2,450	2,450	2,450	2,450	2,450	0	0	
1,698	Urquijo Gestión, S.A., S.G.I.I.C., Sociedad Unipersonal	726	726	2.957	2,958	4,234	4,256	4,256	4,256	4,25
1,699	USAA Investment Management Company	130,800	118,300	129,495	63,700	41,500	D	0	0	
1,700	Utah Retirement Systems	90.335	90,535	91,035	91,035	91,135	93,335	100,235	102,335	102,43
1.701	Valiant Bank AG	3,300	3,920	3,300	3,300	3,920	620	2,850	2,850	2,85
1,702	Valley National Advisers Inc.	327	327	327	327	0	0	0	0	
1,703	Valley National Bancorp	56	56	56	56	56	56	56	0	
1,704	Van Eck Associates Corporation	2,697,265	2,705,091	2,744,690	2,777,605	2,860,283	2,647,743	74,212	67,154	67,04
1,705	Vanguard Investments Australia Ltd.	0	275	271	271	148,043	148,063	354,650	298,444	192,80
1,706	Vantage Investment Advisory Limited	652	386	386	386	197	197	197	197	19
1,707	Vaughan Nelson Investment Management, L.P.	67,814	69,317	69,317	56,724	70,669	37,379	38,756	38,267	37,10
1,708	Verde Asset Management S.A.	0	0	0	209,968	106,718	103,168	95,452	27,836	41,25
1,709	Veritable, L.P.	42,784	39,755	49,359	41,782	25,672	26,468	30,160	26,580	26,81
1,710	Veritas Investment Management LLP	19,415	18,900	17,632	13,669	6,100	5,600	5,200	5,200	4,90

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				Quarter	ly Share Own	ership for Rep	porting Institu	itions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,711	Verition Fund Management LLC	4,052	9,053	16,904	13,552	13,383	14,118	35,800	33,390	41,533
1,712	Versant Capital Management, Inc.	0	0	0	212	176	176	202	202	189
1,713	Vestcor Investment Management Corporation	0	0	0	0	17,691	17,691	17,691	17,691	17,691
1,714	Victory Capital Management Inc.	.0	0	0	6,845	6,668	6,514	9,745	10,512	10,167
1,715	Vident Investment Advisory, LLC	5,619	6,587	42	O	0	0	0	0	0
1,716	Viking Fund Management, LLC	367,000	362,000	290,000	0	0	0	0	0	
1.717	Viking Global Investors LP	0	0	0	4,590,975	853,467	7,802,981	8,538,223	0	Č
1,718	Virginia Retirement System	10,550	10,563	10,697	10,801	29,939	21,700	21,700	32,800	39,672
1,719	Virtu Americas LLC	13,921	41,049	77,761	82,726	62,051	76,074	11,754	36,504	81,647
1,720	Virtu KCG Holdings, L.L.C.	27,762	27,762	0	0	.0.	0	0	0	0
1,721	Virtus Fund Advisers, LLC	606	606	606	606	606	606	606	606	606
1,722	Virtus Investment Advisers, Inc.	0	0	0	0	0	0	8,586	30,485	G
1,723	Visium Asset Management, LP	71,343	210,956	121,408	183,036	260,867	0	0	0	- 0
1,724	Vollero Beach Capital Partners LLC	142,677	0	0	0	78,290	0	0	0	.0
1,725	Voloridge Investment Management, LLC	0	0	0	0	0	0	0	92,017	648,203
1.726	Voya Investment Management LLC	2,804,788	1,638,927	1,548,367	1,534,769	2,586,717	2,139,477	1,712,003	1,807,133	801,210
1,727	VP Bank (Schweiz) AG	720	720	720	720	720	720	0	0	Ċ
1,728	VR Capital Group Ltd	0	0	0	0	0	0	0	100,000	100,000
1,729	W & W Asset Management GmbH	10	0	0	1,315	1,315	1,315	1,315	1,315	1.315
1,730	W. H. Reaves & Co., Inc.	65,600	109,475	19,175	47,550	0	0	10,000	0	0
1,731	W.E. Donoghue & Co., LLC	0	0	0	0	0	n	D	28	0
1,732	Wafra Inc.	159,500	170,255	166,579	86,090	Ó	0	D	0	94,755
1,733	Wagner Bowman Management Corp.	4,745	4,545	4,545	0	0	0	0	0	
1.734	Walleye Trading, LLC	44,756	130,353	114,047	154,632	0	0	O	0	26,749
1,735	Walser Privalbank AG	700	700	700	0	0	0	D	0	0
1,736	Waratah Capital Advisors Ltd.	0	0	0	0.	86,851	57,350	152,830	148,344	264,435
1.737	Warburg Invest AG	1,302	1,302	1,302	1,302	1,302	1,302	1,302	1,302	1,302
1,738	Warren Averett Asset Management, LLC	0	.0	0	0	0	0	0	2,925	0
1,739	Wasatch Global Investors Inc	0	0	0	0	0	0	191,146	98,357	81,242
1,740	Washington Trust Bank	3,572	3,567	2,306	2,281	3,083	1,938	2,366	2,176	2,019
1,741	Washington Trust Co.	4,349	4,189	4,427	0	0	0.	3,300	3,270	0
1,742	Waters, Parkerson & Co., LLC	0	0	0	0	0	O.	0	3,400	3,536
1,743	Waycross Partners, LLC	0	515	984	0	0	0	0	0	2,330
1,744	WCG Management L.P.	0	0	0	750,000	100,000	0	0	0	
1,745	Wealthcare Advisory Partners LLC	0	a	0	0	0	1	1	1	
1,746	Wealthcare Capital Management, LLC	1,495	a	0	0	0	0	n	D	
1,747	Wealthfront Advisers LLC	2,913	4,073	5,294	4,550	9,746	11,024	11,605	12,239	12,550
1,748	Weatherbie Capital, LLC	2,313	9,073	0,254	4,550	0,740	7,109	3,619	19,988	4,839
1,749	Weatherly Asset Management LP	2,650	2,650	0	0	0	0,109	0	0	4,02,
1,750	Webster Financial Advisors	0	2,030	0	0	0	0	0	538	763
1,751	Wedbush Securities, Inc.	4,217	4,279	4,269	4,185	6,191	6,275	7,599	8,636	8,629
1,752	WEDGE Capital Management, L.L.P.	4,217	0	0	0	53,329	42,489	42,489	42,489	42,489
1,753	Weiss Multi-Strategy Advisers LLC	0	0	11,207	0	0 0	42,469	136,351	42,469	42,40
1.754	Weisshorn Capital Partners GmbH	0	0	0	0	0	12,000	9,000	8,000	6,000
1,755	Welch & Forbes LLC	67,659	66,167	63,977	63,378	59,550	60,085	9,000	68,534	75,983

Exhibit C

				Quarter	y Share Own	ership for Re	porting Institu	utions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,756	Wellington International Management Company Pte Ltd.	22,371	22,371	18,309	20,570	20,003	55,267	39,915	31,769	28,966
1,757	Wellington Management Company, LLP	21,051,733	20,650,171	21,518,712	26,762,212	24,891,271	26,414,119	31,032,751	22,406,389	19,384,130
1,758	Wellington Shields & Co. LLC.	0	0	0	0	0	0	Ò	3,500	3,50
1,759	Wellington Shields Capital Management, LLC	10,762	10,762	10,762	9,912	9,912	9,912	13,012	13,012	13,01
1,760	Wells Capital Management Inc.	68,337	366,067	613,356	818,806	1,171,173	1,069,810	1,151,644	1,344,977	1,832,18
1,761	Wells Fargo Advisors	1,314,426	1,322,396	1,474,468	1,384,561	2,107,310	2,044,271	1,981,848	2,058,463	1,939,46
1,762	Wells Fargo Bank, N.A.	1,364,323	1,314,567	2,226,639	2,633,164	500,517	68,900	94,586	156,248	98,90
1,763	Wells Fargo Securities, LLC	0	119	0	77,658	24,300	0	0	0	15,33
1.764	WesBanco Bank, Inc.	13,616	12,404	12,404	12,404	12,704	12,018	12,018	11,823	11,82
1,765	West Oak Capital, LLC	2,700	2,700	2,650	2,650	2,650	2,600	2,600	2,500	1,00
1,766	Westbourne Investment Advisors, Inc.	0	2,650	0	0	0	3,800	4,000	4,100	4,50
1,767	Westchester Capital Management, LLC	1,179,100	1,218,800	1,242,546	1,242,500	0	0	0	0	0,850
1,768	WestEnd Capital Management, L.L.C.	20,774	20,200	20,410	8,487	19,092	18,095	0	0	
1,769	Westfield Capital Management Company, L.P.	0	0	0	52,465	69,095	54,385	63,935	63,935	63,93
1.770	Westpac Banking Corporation	226,933	5,135	5,074	6,064	0	0	0	838	00,000
1,771	Westport Asset Management, Inc.	218,000	218,000	200,000	200,000	200,000	200,000	200,000	200,000	200,00
1,772	Westport Resources Management, Inc.	4,363	4,305	3,695	1,795	0	0	0	0	200,00
1,773	Westwood Management Corp. (Texas)	71,899	78,945	87,423	57,150	100	100	100	100	10
1.774	Wetherby Asset Management, Inc.	6,346	6,741	5,903	6,082	6,755	8,329	9,094	9,162	10,81
1,775	WFG Advisors LP	3,277	3,277	3,307	3,278	3,311	3,255	3,255	2,334	10/01
1,776	Whittier Trust Company	14,365	14,365	12,985	19,601	13,673	12,364	12,364	12,004	11,96
1,777	Whittier Trust Company of Nevada, Inc.	6,835	5,410	5.410	3,960	3,960	3,960	3,960	3,790	3.79
1,778	William Blair & Company, L.L.C. (Research)	15,160	13,964	15,073	19,806	20,530	16.834	15,828	15,782	16,56
1,779	William Blair Investment Management, LLC	15,100	0	0	19,000	20,550	10,634	13,628	13,437	1,00
1,780	Williams Jones Wealth Management LLC	6,918	5,768	0	0	0	0	0	13,437	1,499
1,781	Wilmington Funds Management Corporation	6,750	5,450	10,650	17,450	14,750	9,950	12,150	12,450	14.35
1,782	Wilmington Trust Investment Advisors, Inc.	17,795	19,278	22,813	21,949	21,588	19,488	20,233	20,173	16,78
1,783	Wilmington Trust Investment Management LLC	43,375	34,048	33,924	36,265	48,039	49,292	49,515	40,689	43,35
1,784	Wilmington Trust, National Association	23,067	29,427	26,608	22,081	19,284	19,889	19,938	18,006	17,32
1,785	Wilshire Associates Incorporated								000,81	17,32
1,786	Winch Financial	3,844	3,844	3,844	3,844	3,844	3,844	3,844 0		7.16
1,787	Windsor Capital Management, LLC	0	0	569	a	0	0	0	360	2,16
1,788	Winslow, Eyans & Crocker, Inc.									1.72
1,789		5,954	5,954	5,954	8,710	7,909	7,910	7,910	5,230	4,73
1,790	Winton Capital Management Ltd. Wolverine Asset Management, LLC	527	0	No. 10. 70.	0		0	2 2 2 2 2	3,218	
				1,527	1,727	90,000		4,803	0	
1,791	Wolverine Trading, LLC	0	0	0	0	0	0	30,860	24,822	58,97
1,792	Woodbury Financial Services, Inc.	29	29	29	29	29	29	0	0	
1,793	Woodley Farra Manion Portfolio Management, Inc.	2,725	0	0	0	0	0	0	0	
1,794	Woodmont Investment Counsel LLC	0	134	134	134	134	0	134	0	
1,795	Woodpecker Capital SA	449	449	449	449	449	449	449	449	
1,796	Woodstock Corporation	146,076	146,376	127,976	130,063	130,133	125,911	126,221	126,351	125,25
1,797	World Asset Management, Inc.	207,048	193,947	195,153	200,985	202,767	202,793	218,411	223,985	227,52
1,798	WrapManager Inc	0	0	0	13,106	27,329	28,450	28,092	28,544	29,84
1,799	Wright Investors' Service Inc.	0	0	0	0	0	4,890	12,110	19,765	16,81
1,800	Wunderlich Capital Management	12,481	12,615	13,839	0	0	0	0	0	- 1

				Quarter	ly Share Own	ership for Re	porting Instit	utions		
#	Investor Name	31-Mar-15	30-Jun-15	30-Sep-15	31-Dec-15	31-Mar-16	30-Jun-16	30-Sep-16	31-Dec-16	31-Mar-17
1,801	Xact Kapitalforvaltning AB	0	0	0	0	0	0	36,362	39,989	43,70
1,802	Yellowstone Partners LLC	2,433	0	6,085	4,739	5,873	4,375	4,377	4,377	4,37
1,803	YHB Investment Advisors, Inc.	40,387	42,279	39,682	38,112	25,727	33,124	23,902	30,907	31,65
1,804	YorkBridge Wealth Partners, LLC	0	0	0	0	0	G	0	3,538	3,20
1,805	Yorktown Management & Research Company, Inc.	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,550	1,55
1,806	Zeke Capital Advisors, LLC	0	0	0	0	0	0	0	3,195	
1,807	Zenit SGR S.p.A.	0	0	O	0	0	3,400	0	3,400	
1,808	Ziegler Capital Management, LLC	68,006	0	10,180	31,985	0	.0	50	0	5
1,809	Zimmer Partners, LP	0	0	O	0	0	0	3,500,000	3,132,292	
1,810	Zions Capital Advisors, Inc.	621	2,825	513	1,011	980	761	1,039	1,039	28
1,811	Zions Direct, Inc.	204	204	204	204	204	204	204	0	
1,812	Zürcher Kantonalbank (Asset Management)	198,833	259,419	120,865	134,986	105,457	81,372	146,060	145,399	143,01
1,813	Zurich Insurance Group	0	0	194,520	63,875	85,876	35,051	89,614	75,531	68,30
1,814	Zweig-DiMenna Associates, Inc.	281,914	454,424	495,997	0	0	0	0	180,568	147,04
1,815	ZWJ Investment Counsel Inc.	0	0	.0	0	0	0	0	0	8,59
	Total	443,645,838	443,317.569	449,417,827	452,338,877	455,651,362	458,667,468	501,841,244	500,438,099	493,688,40
	Source: Thomson Financial									
		3/31/2015	6/30/2015	9/30/2015	12/31/2015	3/31/2016	6/30/2016	9/30/2016	12/31/2016	3/31/201
	atstanding (Source: Bloomberg): nal Shares as % of Shares Outstanding	515,477,000 86.1%	507,936,000 87,3%	508,012,000 88.5%	508,143,000 89,0%	515,985,000 88.3%	510,427,000 89.9%	553,617,000 90.6%	558,901,000 89.5%	558,702,000 88.49

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EXHIBIT D

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-		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis (3)
	Reported	contar.	Closing		A OF POS	7.000	Predicted	Abnormal	22/2010-22
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4
2/17/2015	7,318,387	1.6	\$88.67	-0.86%	0.18%	-0.02%	0.04%	-0.90%	(0.68
2/18/2015	4,712,349	1.1	\$86.87	-2.03%	-0.03%	-1.63%	-1.59%	-0.44%	(0.33
2/19/2015	6,215,484	1.4	\$86,10	-0.89%	-0.09%	-0.48%	-0.46%	-0.43%	(0.32
2/20/2015	3,749,883	0.8	\$85.45	-0.75%	0.63%	-0.87%	-0.76%	0.01%	0.01
2/23/2015	3,861,869	0.9	\$85.52	0.08%	-0.03%	-0.60%	-0.57%	0.66%	0.50
2/24/2015	3,003,344	0.7	\$85.89	0.43%	0,28%	0.75%	0.82%	-0.38%	(0.29
2/25/2015	3,190,496	0.7	\$86.41	0.61%	-0.06%	-0.06%	-0.04%	0.65%	0.49
2/26/2015	4,002,373	0.9	\$85.24	-1.35%	-0.13%	-3.10%	-3.07%	1.71%	1.30
2/27/2015	6,321,673	1.4	\$84.23	-1.18%	-0.29%	-0.92%	-0.91%	-0.27%	(0.21)
3/2/2015	6,564,662	1,5	\$82.02	-2.62%	0.62%	-0.62%	-0.48%	-2.15%	(1.63
3/3/2015	5,506,768	1.2	\$82.78	0.93%	-0.45%	0.58%	0.55%	0,37%	0.28
3/4/2015	3,426,730	8.0	\$83.35	0.69%	-0.42%	-0.11%	-0.13%	0.82%	0.62
3/5/2015	3,312,179	0.7	\$82.84	-0.61%	0.12%	-1.02%	-0.95%	0.34%	0.26
3/6/2015	5,386,879	1.2	\$81.73	-1,34%	-1.41%	-2.34%	-2.45%	1.11%	0.84
3/9/2015	3,296,411	0.7	\$80.77	-0.84%	0.40%	-1.68%	-1,57%	0.73%	0.55
3/10/2015	4,617,143	1.0	\$78.99	-2.20%	-1.69%	-1.68%	-1.82%	-0.38%	(0.29
3/11/2015	3,134,550	0.7	\$79.49	0.63%	-0.18%	0.96%	0.97%	-0.33%	(0.25
3/12/2015	2,972,525	0.7	\$78.19	-1.64%	1.29%	-0.82%	-0.61%	-1.03%	(0.78
3/13/2015	3,577,865	0.8	\$78.42	0.29%	-0.61%	-0.27%	-0.30%	0,59%	0.45
3/16/2015	4,590,672	1.0	\$80.64	2.83%	1.36%	1.48%	1.65%	1.19%	0.90
3/17/2015	6,100,955	1.4	\$80.44	-0.25%	-0.33%	-0.84%	-0.82%	0.57%	0.43
3/18/2015	5,485,446	1.2	\$82.59	2.67%	1.22%	3.13%	3.28%	-0.61%	(0.46
3/19/2015	4,001,142	0.9	\$80.43	-2.62%	-0.49%	-2.22%	-2.19%	-0.42%	(0.40
3/20/2015	5,062,910	1.1	\$81.95	1.89%	0.90%	1.29%	1.42%	0.47%	0.35
3/23/2015	3,865,744	0.9	\$81.04	-1.11%	-0.17%	-0.93%	-0.89%	-0.22%	(0.17
3/24/2015	3,503,918	0.8	\$81.41	0.46%	-0.61%	-0.31%	-0.32%	0.78%	0.59
3/25/2015	4,056,799	0.9	\$82.34	1.14%	-1.45%	1.65%	1.54%	-0.39%	(0.30
3/26/2015	4,060,903	0.9	\$83.20	1.04%	-0.24%	0.42%	0.44%	0.61%	0.46
3/27/2015	2,432,362	0.5	\$82.19	-1.21%	0.26%	-1,03%	-0.94%	-0.27%	(0.21
3/30/2015	2,828,757	0.6	\$83.85	2.02%	1.23%	1,82%	1.98%	0.04%	0.03
3/31/2015	2,397,928	0.5	\$82,81	-1.24%	-0.87%	-0.98%	-1.00%	-0.24%	(0.18
4/1/2015	4,170,372	0.9	\$83.86	1.27%	-0.38%	1.10%	1.11%	0.16%	0.12
4/2/2015	3,567,863	0.8	\$84.55	0.82%	0.36%	1.23%	1.32%	-0.49%	(0.37
4/6/2015	3,250,781	0.5	\$85.86	1,55%	0.66%	2,88%	2.98%	-1.43%	(1.09
4/7/2015	3,518,976	0.8	\$85.44	-0.49%	-0.20%	0,27%	0.30%	-0.79%	(0.60
4/8/2015	5,908,806	1.3	\$86.12	0.80%	0.31%	-0.82%	-0.73%	1.53%	1.16
4/9/2015	5,976,704	1.3	\$88.90	3.23%	0.45%	1.89%	1.96%	1.27%	0.96
4/10/2015	4,061,904	0.9	\$90.10	1.35%	0.52%	0.20%	0.31%	1.04%	0.96
4/13/2015	4,299,731	1.0	\$88,68	-1.58%	-0.45%	-0.68%	-0.72%	-0.86%	(0.87
4/13/2015	4,113,429	0.9	\$90.83	2.42%	0.16%	2.50%	2,40%	0.02%	0.02
4/15/2015	7,222,503	1.6	\$94.54	4.08%	0.16%	2.76%	2.73%	1.36%	1.42

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-		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis (3)
	Reported		Closing				Predicted	Abnormal	
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
4/16/2015	5,076,531	1.1	\$93.94	-0,63%	-0.08%	-0,44%	-0,43%	-0.20%	(0,21)
4/17/2015	6,560,651	1,5	\$93.68	-0,28%	-1,13%	-1.13%	-1.29%	1.01%	1.05
4/20/2015	7,866,624	1.8	\$93.66	-0.02%	0.93%	0.57%	0.69%	-0.71%	(0.74)
4/21/2015	3,091,857	0.7	\$92.56	-1.17%	-0.15%	-2.29%	-2.23%	1.05%	1.10
4/22/2015	2,651,577	0.6	\$93.04	0.52%	0.51%	0.07%	0.14%	0.37%	0.39
4/23/2015	2,639,294	0.6	\$93.46	0.45%	0.25%	0.71%	0.74%	-0.29%	(0.30)
4/24/2015	3,426,548	0.8	\$92.65	-0.87%	0.23%	-0.90%	-0.81%	-0.05%	(0.06)
4/27/2015	2,424,079	0.5	\$93.16	0.55%	-0.41%	-0.33%	-0.36%	0.91%	0.95
4/28/2015	2,251,433	0.5	\$93.66	0.54%	0.29%	0.96%	0.99%	-0.45%	(0,47)
4/29/2015	3,339,185	0.7	\$93.90	0.26%	-0.37%	1.56%	1.48%	-1.22%	(1.28)
4/30/2015	5,498,374	1.2	\$94.10	0.21%	-1.01%	-0.10%	-0.23%	0.44%	0.46
5/1/2015	2,211,910	0.5	\$93.92	-0.19%	1.09%	-0.06%	0.11%	-0.31%	(0.32)
5/4/2015	5,065,535	1.1	\$93.73	-0,20%	0.29%	-0.22%	-0.15%	-0.05%	(0.05)
5/5/2015	9,411,401	2,1	\$89.32	-4.71%	-1.17%	-2.21%	-2.29%	-2.41%	(2.52)
5/6/2015	4.731,354	1,1	\$89.66	0.38%	-0.41%	-0.74%	-0.76%	1.14%	1.19
5/7/2015	5,234,333	1.2	\$88.77	-0.99%	0.40%	-1.63%	-1.49%	0.50%	0.52
5/8/2015	5,394,347	1.2	\$88.56	-0.24%	1.35%	1.34%	1.51%	-1.74%	(1.82)
5/11/2015	4,053,931	0.9	\$86.32	-2.53%	-0.49%	-2.79%	-2.74%	0.21%	0.22
5/12/2015	4,337,104	1.0	\$86.19	-0.15%	-0.29%	0.65%	0.61%	-0.76%	(0.78)
5/13/2015	4,198,950	0.9	\$85.11	-1.25%	-0.01%	-1.24%	-1.18%	-0.07%	(0.07)
5/14/2015	3,154,919	0.7	\$84.49	-0.73%	1.09%	-0.49%	-0.31%	-0.42%	(0.44)
5/15/2015	4,536,728	1.0	\$84.67	0.21%	0.09%	0.44%	0.46%	-0,25%	(0.26)
5/18/2015	3,169,627	0.7	\$84.98	0.37%	0.31%	0.34%	0.40%	-0.03%	(0.03)
5/19/2015	4,105,895	0.9	\$83.56	-1.67%	-0.04%	-1.94%	-1.86%	0.19%	0.20
5/20/2015	2,629,964	0.6	\$83.40	-0.19%	-0.08%	0.55%	0.55%	-0.75%	(0.79)
5/21/2015	3,907,136	0.9	\$85.60	2,64%	0.25%	1.42%	1.43%	1.21%	1.28
5/22/2015	4,026,816	0.9	\$86.17	0.67%	-0.22%	-0.55%	-0.53%	1.20%	1.26
5/26/2015	3,598,686	0.8	\$84.18	-2.31%	-1.03%	-1.25%	-1.31%	-1.00%	(1.05)
5/27/2015	3,492,098	0.8	384.15	-0.04%	0.93%	-0.56%	-0.39%	0.36%	0.37
5/28/2015	3,087,900	0.7	\$83.92	-0.27%	-0.11%	-0.75%	-0.71%	0.43%	0.45
5/29/2015	4,045,241	0.9	\$83.61	-0.37%	-0.63%	-0.02%	-0.07%	-0.30%	(0.32)
6/1/2015	2,830,521	0.6	\$83.84	0.28%	0.22%	-0.48%	-0.41%	0.68%	0.72
6/2/2015	2,995,050	0.7	\$84.79	1_13%	-0.10%	0.96%	0.95%	0.19%	0.20
6/3/2015	4,360,170	1.0	\$83.92	-1.03%	0.23%	-0.99%	-0.89%	-0.14%	(0.14)
6/4/2015	2,284,962	0.5	\$83.40	-0.62%	-0.86%	-1.53%	-1.57%	0.95%	1.00
6/5/2015	3,000,129	0.7	\$84.49	1.31%	-0.14%	1.27%	1.25%	0.05%	0.06
6/8/2015	3,846,817	0.7	\$82.96	-1.49%	-0.63%	-1.00%	-1.01%	-0,49%	(0.51)
6/9/2015	4.515,623	1.0	\$83.22	0.31%	0.04%	0.35%	0.39%	-0.07%	(0.08)
6/10/2015	2,120,108	0.5	\$84.61	1.67%	1.21%	1.18%	1.34%	0.33%	0.35
6/11/2015	1,845,108	0.4	\$83.93	-0.80%	0.20%	-0.29%	-0.22%	-0.59%	(0.62)
6/12/2015	3,578,569	0.8	\$83.12	-0.97%	-0.69%	-1.22%	-1 23%	0.26%	0.28

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100		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis (3)
	Reported		Closing	-3		Date of the same of	Predicted	Abnormal	
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
6/15/2015	1,892,500	0.4	\$82.67	-0.54%	-0.46%	-0.52%	-0.51%	-0.03%	(0.03)
6/16/2015	1,515,221	0.3	\$83.61	1.14%	0.57%	1.35%	1,43%	-0.29%	(0.31)
6/17/2015	2.008,813	0.4	\$83.03	-0.69%	0,20%	-1.20%	-1.09%	0.40%	0.42
6/18/2015	2,408,410	0.5	\$82.89	-0.17%	1.00%	-0.47%	-0.26%	0.09%	0.10
6/19/2015	4,028,878	0.9	\$81.82	-1.29%	-0.53%	-1.13%	-1.13%	-0.16%	(0.18)
6/22/2015	2,007,299	0.4	\$81.97	0.18%	0.61%	0.70%	0.80%	-0.62%	(0.67)
6/23/2015	1,941,031	0.4	\$82.22	0.31%	0.07%	0.83%	0.84%	-0.54%	(0.59)
6/24/2015	3,847,381	0.9	\$81.45	-0.94%	-0.73%	-0.61%	-0.66%	-0.28%	(0.30)
6/25/2015	3,039,708	0.7	\$80.73	-0.88%	-0.29%	-0.95%	-0.93%	0.04%	0.05
6/26/2015	3,973,846	0.9	\$81.36	0.78%	-0.02%	0.50%	0.51%	0.27%	0.29
6/29/2015	3,931,862	0.9	\$78.59	-3,40%	-2.08%	-2.44%	-2.61%	-0.79%	(0.87)
6/30/2015	4,270,814	1.0	\$78.06	-0.67%	0.27%	0.54%	0.59%	-1.26%	(1.38)
7/1/2015	5,155,217	1.2	\$77.18	-1.13%	0.72%	-2.57%	-2.33%	1.20%	1,31
7/2/2015	3,474,390	0.8	\$76.78	-0.52%	-0.03%	0.43%	0.44%	-0.95%	(1,04)
7/6/2015	3,967,671	0.9	\$76.38	-0.52%	-0.38%	-2.21%	-2.14%	1.62%	1.75
7/7/2015	5,979,068	1.3	\$77.92	2.02%	0.61%	2.03%	2.06%	-0.04%	(0.04)
7/8/2015	3,653,087	0.8	\$75.47	-3.14%	-1.64%	-2.47%	-2.57%	-0.57%	(0.62)
7/9/2015	3,703,230	0.8	\$76.08	0.81%	0.23%	1.03%	1.04%	-0.24%	(0.26)
7/10/2015	3,381,679	0.8	\$75.71	-0.49%	1.23%	-0.83%	-0.53%	0.05%	0.05
7/13/2015	3,480,853	0.8	\$75.70	-0.01%	1.12%	-0.27%	-0.02%	0.01%	0.01
7/14/2015	5,639,051	1.3	\$76.37	0.89%	0.45%	1.52%	1.55%	-0.67%	(0.72)
7/15/2015	4,723,560	1.1	\$75.20	-1.53%	-0.07%	-2.02%	-1.89%	0.35%	0.39
7/16/2015	4,296,594	1.0	\$74.69	-0.68%	0.80%	-0.56%	-0.34%	-0.33%	(0.36)
7/17/2015	4,012,775	0.9	\$73.88	-1.08%	0.11%	-2.08%	-1.90%	0.82%	0.89
7/20/2015	4,795,648	1.1	\$72.62	-1.71%	0.08%	-2.79%	-2.57%	0.87%	0.94
7/21/2015	4,907,584	1.1	\$73.37	1.03%	-0.42%	-1.21%	-1.18%	2.21%	2.39
7/22/2015	5,266,989	1.2	\$72.66	-0.97%	-0.23%	-1.06%	-1.01%	0.04%	0.05
7/23/2015	3,054,196	0.7	\$72.54	-0.17%	-0.56%	-0.55%	-0.59%	0.43%	0.48
7/24/2015	3,418,825	0.8	\$71.61	-1.28%	-1.07%	-2.96%	-2.92%	1.64%	1.88
7/27/2015	4,734,234	1.1	\$69.99	-2,26%	-0.58%	-1.60%	-1.54%	-0.72%	(0.82)
7/28/2015	6,230,040	1.4	\$72.85	4.09%	1.24%	3.76%	3.78%	0.31%	0.35
7/29/2015	7,818,149	1.8	\$76.28	4.71%	0.74%	1.63%	1.72%	2.99%	3.44
7/30/2015	3,999,753	0.9	\$76.63	0.46%	0.01%	-0.26%	-0.19%	0.65%	0.74
7/31/2015	4,025,825	0,9	\$74.35	-2.98%	-0.23%	-2.71%	-2.54%	-0.44%	(0,51)
8/3/2015	3,829,043	0.9	\$73,22	-1.52%	-0.28%	-2.46%	-2.32%	0.80%	0.92
8/4/2015	4,208,724	0.9	\$74.30	1.48%	-0.22%	0.02%	0.03%	1.44%	1.67
8/5/2015	3,898,475	0.9	\$74.01	-0.39%	0.35%	-2.69%	-2.41%	2.02%	2.32
8/6/2015	5,069,360	1.1	\$76.15	2.89%	-0.75%	3.15%	2.84%	0.05%	0.06
8/7/2015	4,695,127	1.1	\$73.05	-4.07%	-0.28%	-2.49%	-2.30%	-1.77%	(2.04)
8/10/2015	3,446,750	0.8	\$75.70	3.63%	1.28%	3.53%	3.58%	0.05%	0.05
8/11/2015	3,653,885	0.8	\$75.47	-0.30%	-0.94%	-0.62%	-0.69%	0.39%	0.45

Exhibit D

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Anadarko Securities Litigation

_		nadarko Petro	oleum Corporation		Market &	Industry	Regression Analysis (3)		
	Reported		Closing				Predicted	Abnormal	
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
8/12/2015	6,202,713	1.4	\$78.10	3 48%	0.12%	1.91%	1.84%	1.65%	1.90
8/13/2015	4,298,692	1.0	\$76.24	-2.38%	-0.11%	-2.24%	-2.05%	-0.33%	(0.38)
8/14/2015	4,219,125	0,9	\$76.25	0.01%	0.39%	-0.43%	-0.28%	0.30%	0.34
8/17/2015	2,399,754	0.5	\$76.54	0.38%	0.54%	0.03%	0.18%	0.20%	0.23
8/18/2015	2,545,928	0.6	\$76.64	0.13%	-0.24%	0.48%	0.46%	-0.33%	(0.39)
8/19/2015	7,351,775	1.6	\$72.38	-5.56%	-0.82%	-3.96%	-3.77%	-1.79%	(2.08)
8/20/2015	6,733,187	1.5	\$71.05	-1.84%	-2.11%	-2.08%	-2.26%	0.43%	0.49
8/21/2015	6,927,000	1.6	\$68.78	-3.19%	-3.17%	-2.80%	-3.10%	-0.10%	(0,11)
8/24/2015	11,059,381	2.5	\$65.55	-4.70%	-3.94%	-6.16%	-6.40%	1.70%	1.97
8/25/2015	5,022,645	1.1	\$63.99	-2.38%	-1.35%	-2.90%	-2.84%	0.46%	0.53
8/26/2015	6,274,936	1.4	\$65.16	1.83%	3.91%	3.35%	3.69%	-1.86%	(2.14)
8/27/2015	9,017,982	2.0	\$69.01	5,91%	2.44%	7.15%	6.99%	-1.08%	(1.24)
8/28/2015	6,647,098	1.5	\$70.94	2.80%	0.07%	3.46%	3.28%	-0.49%	(0,55)
8/31/2015	7,077,086	1.6	\$71.58	0.90%	-0.83%	1.98%	1.82%	-0.92%	(1.04)
9/1/2015	5,283,636	1.2	\$68.29	-4.60%	-2.95%	-4.21%	-4.14%	-0.46%	(0.52)
9/2/2015	4,221,792	0.9	\$69.53	1.82%	1.85%	0.40%	0.59%	1,23%	1.39
9/3/2015	4,016,702	0.9	\$69.51	-0.03%	0.12%	0.46%	0.11%	-0.14%	
9/4/2015	3,385,990	0.9	\$68.34	-1.29%	-1.53%	-1.44%	-1.46%	0.17%	(0.16) 0.19
9/8/2015	3,565,578	0.8	\$69.70	1,99%		1.64%	1.84%	0.15%	0.19
9/9/2015					2.52%				
	4,004,504	0.9	\$67.20	-3.59%	-1.38%	-2.92%	-2.81%	-0.78%	(0.89)
9/10/2015	4,137,509	0.9	\$67.21	0.01%	0.54%	0.52%	0.58%	-0.57%	(0.65)
9/11/2015	4,574,475	1.0	\$65.65	-2.32%	0.48%	-1.07%	-0.88%	-1.44%	(1.64)
9/14/2015	3,587,806	0.8	\$65.00	-0.99%	-0.40%	0.06%	0.05%	-1.04%	(1.18)
9/15/2015	2,571,376	0.6	\$65.72	1.11%	1.28%	0.89%	1.00%	0.11%	0,12
9/16/2015	4,678,656	1.0	\$69.14	5.20%	0.87%	5.21%	4.94%	0.26%	0.30
9/17/2015	6,232,864	1.4	\$68.57	-0.82%	-0.24%	-0.39%	-0.35%	-0.47%	(0.53)
9/18/2015	6,832,618	1.5	\$65.47	-4.52%	-1.62%	-2.51%	-2.47%	-2.05%	(2.32)
9/21/2015	2,564,573	0.6	\$65.86	0.60%	0.46%	0.20%	0.27%	0.32%	0.36
9/22/2015	2,781,073	0.6	\$64.81	-1.59%	-1.23%	-2.03%	-2.00%	0,41%	0.46
9/23/2015	4,733,317	1,1	\$63.18	-2.52%	-0.20%	-2.44%	-2.25%	-0.26%	(0.29)
9/24/2015	3,459,562	0.8	\$63.70	0.82%	-0.34%	0.95%	0.87%	-0.05%	(0.05)
9/25/2015	4,251,918	1.0	\$62.67	-1.62%	-0.05%	-0.32%	-0.27%	-1.35%	(1.51)
9/28/2015	6.347,243	1.4	\$59.43	-5.17%	-2.54%	-4.87%	-4.80%	-0.37%	(0.41)
9/29/2015	4,435,947	1.0	\$59.04	-0.66%	0.13%	0.95%	0.92%	-1.58%	(1.77)
9/30/2015	3.989,049	0.9	\$60.39	2.29%	1.91%	3.54%	3 54%	-1 26%	(1.40)
10/1/2015	4,083,759	0.9	\$60.95	0.93%	0.20%	0.34%	0.34%	0.58%	0.65
10/2/2015	5,264,105	1.2	\$64.11	5.18%	1.44%	6.47%	6.15%	-0.97%	(1.08)
10/5/2015	5,365,071	1.2	\$66.49	3.71%	1.83%	4.35%	4.20%	-D.49%	(0.54)
10/6/2015	4,978,473	1.1	\$68.65	3.25%	-0.36%	3.83%	3.48%	-0.23%	(0.25)
10/7/2015	5,304,896	1.2	\$69.14	0.71%	0.84%	0.77%	0.80%	-0.09%	(0.10)
10/8/2015	7,104,999	1.6	\$72.33	4.61%	0.88%	3.19%	3,02%	1.60%	1.78

Exhibit D

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	A	nadarko Petro	oleum Corporation		Market &	Industry	Regression Analysis (3)			
	Reported	- XX 02 PK	Closing				Predicted	Abnormal		
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)	
10/9/2015	5,409,998	1.2	\$72.40	0.10%	0.08%	-1.16%	-1.04%	1.13%	1.25	
10/12/2015	4,138,040	0.9	\$71.09	-1.81%	0.13%	-2.68%	-2.43%	0.62%	0.68	
10/13/2015	2,961,209	0.7	\$70.58	-0.72%	-0.67%	-1.13%	-1.09%	0.37%	0.41	
10/14/2015	4,428,094	1.0	\$71.57	1.40%	-0.47%	1.41%	1.26%	0.14%	0.16	
10/15/2015	4,103,884	0.9	\$72.96	1.94%	1.49%	2.07%	2.09%	-0.15%	(0.17)	
10/16/2015	4,414,027	1.0	\$73.39	0.59%	0.46%	0.51%	0.54%	0.05%	0.06	
10/19/2015	4,051,128	0.9	\$72.31	-1.47%	0.03%	-2.97%	-2.67%	1.20%	1.34	
10/20/2015	2,910,530	0.7	\$73.29	1,36%	-0.14%	0.82%	0.77%	0.59%	0.65	
10/21/2015	2,753,957	0.6	\$71,55	-2,37%	-0.57%	-1.97%	-1.82%	-0.56%	(0.62)	
10/22/2015	3,318,670	0.7	\$73.00	2.03%	1.67%	2.16%	2.17%	-0.14%	(0.16)	
10/23/2015	4,558,041	1.0	\$72.03	-1.33%	1.10%	-0.20%	-0.03%	-1.30%	(1.46)	
10/26/2015	4,820,992	1.1	\$69.00	-4.21%	-0.19%	-3.65%	-3.30%	-0.90%	(1.02)	
10/27/2015	8,163,419	1.8	\$65.29	-5.38%	-0.26%	-2.81%	-2.57%	-2.81%	(3.19)	
10/28/2015	7,213,311	1.6	\$65.55	0.40%	1,19%	3.23%	3.11%	-2.72%	(3.04)	
10/29/2015	6.891,954	1.5	\$67.58	3.10%	-0.03%	0.05%	0.06%	3.04%	3.40	
10/30/2015	5,663,857	1.3	\$66.88	-1.04%	-0.48%	1.27%	1.14%	-2.18%	(2.38)	
11/2/2015	4,522,142	1.0	\$67.38	0.75%	1.19%	2.83%	2.74%	-1.99%	(2.15)	
11/3/2015	6,343,931	1.4	\$70.84	5.14%	0.27%	3.46%	3.19%	1.95%	2.09	
11/4/2015	4,940,115	1.1	\$70.22	-0.88%	-0.32%	-0.96%	-0.90%	0.02%	0.02	
11/5/2015	3,208,362	0.7	\$70.10	-0.17%	-0.09%	0.09%	0.09%	-0.27%	(0.28)	
11/6/2015	3,723,498	0.8	\$68.60	-2.14%	-0.02%	-1.51%	-1.36%	-0.78%	(0.83)	
11/9/2015	3,369,583	0.8	\$67.90	-1.02%	-0.96%	0.94%	0.78%	-1.80%	(1.92)	
11/10/2015	17,835,781	4.0	\$63.42	-6.60%	0.18%	0.67%	0.64%	-7.24%	(7.70)	
11/11/2015	13,250,350	3.0	\$61.01	-3.80%	-0.32%	-4.03%	-3.72%	-0.08%	(0.08)	
11/12/2015	9,299,955	2.1	\$58.50	-4.11%	-1,38%	-2.17%	-2,17%	-1.94%	(1.86)	
11/13/2015	9,381,682	2.1	\$60.05	2.65%	-1.12%	-0.33%	-0.49%	3.14%	2,99	
11/16/2015	7,089,698	1.6	\$62.11	3.43%	1.51%	3.61%	3.46%	-0.03%	(0.02)	
11/17/2015	7,130,047	1.6	\$61.12	-1,59%	-0.11%	-1.90%	-1.76%	0.17%	0.16	
11/18/2015	4,020,746	0.9	\$61.74	1.01%	1.62%	1.77%	1.78%	-0.77%	(0.72)	
11/19/2015	5,114,302	1.1	\$59.64	-3.40%	-0.11%	-2.52%	-2.33%	-1.07%	(1.01)	
11/20/2015	4,338,024	1.0	\$58.74	-1.51%	0.40%	-1.72%	-1.55%	0.04%	0.03	
11/23/2015	6,585,389	1.5	\$60.35	2.74%	-0.12%	0.50%	0.43%	2,31%	2.17	
11/24/2015	5,438,328	1.2	\$62.02	2.77%	0.13%	3.67%	3,38%	-0.62%	(0.57)	
11/25/2015	2,784,863	0.6	\$61.13	-1.44%	0.00%	-1.15%	-1.07%	-0.37%	(0.34)	
11/27/2015	2,304,930	0.5	\$60.71	-0.69%	0.08%	-1.83%	-1.68%	1.00%	0.93	
11/30/2015	5,533,085	1.2	\$59.90	-1.33%	-0.46%	0.66%	0,54%	-1,88%	(1.74)	
12/1/2015	5,338,914	1.2	\$60.50	1.00%	1.08%	1.42%	1.41%	-0.40%	(0.37)	
12/2/2015	6,525,633	1.5	\$58.77	-2.86%	-1.08%	-3.61%	-3.43%	0.57%	0.53	
12/3/2015	6,107,945	1.4	\$58.14	-1.07%	-1.43%	-2.67%	-2.60%	1.53%	1.41	
12/4/2015	8,315,611	1.9	\$56.81	-2.29%	2.05%	-1.55%	-1.18%	-1.11%	(1.02)	
12/7/2015	11,092,713	2.5	\$53.68	-5.03%	-0.69%	-5,28%	-4.75%	-0,29%	(0.26)	

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	A	nadarko Petro	oleum Corporation		Market &	Industry	F	Regression Analysis ((3)
	Reported		Closing				Predicted	Abnormal	
Date	Volume	xM(1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
12/8/2015	9,576,471	2.1	\$51.82	-3.47%	-0.64%	-0.04%	-0.11%	-3.35%	(3.12)
12/9/2015	8,609,648	1.9	\$50.83	-1,91%	-0.77%	0.73%	0.53%	-2.44%	(2.23)
12/10/2015	8.363,900	1.9	\$51.23	0.79%	0.24%	1.48%	1.31%	-0.53%	(0.48)
12/11/2015	9,869,764	2.2	\$49.55	-3.28%	-1.93%	-4.38%	-4.15%	0.87%	0.79
12/14/2015	11,824,846	2.6	\$47.59	-3.96%	0.48%	-0.35%	-0.26%	-3.69%	(3.35)
12/15/2015	7,060,402	1.6	\$48.80	2.54%	1.06%	1.95%	1.83%	0.72%	0.64
12/16/2015	7,657,622	1.7	\$47.67	-2.32%	1.46%	-1.72%	-1.40%	-0.91%	(0.82)
12/17/2015	13,563,465	3.0	\$46.73	-1.97%	-1.49%	-4.12%	-3.92%	1.95%	1.74
12/18/2015	8,659,164	1.9	\$45.67	-2.27%	-1.78%	-1.04%	-1.16%	-I_11%	(0.98)
12/21/2015	13,333,245	3.0	\$46.55	1.93%	0.79%	-0.73%	-0.61%	2.54%	2.26
12/22/2015	11,511,431	2.6	\$48.55	4.30%	0.89%	1.23%	1.17%	3.13%	2.75
12/23/2015	8,278,780	1.9	\$51.50	6.08%	1.24%	7.00%	6.33%	-0.26%	(0.22)
12/24/2015	2,691,620	0.6	\$51,22	-0.54%	-0.16%	-0.55%	-0.53%	-0.01%	(0.01)
12/28/2015	4,945,236	1.1	\$49.69	-2,99%	-0.22%	-3.62%	-3.24%	0.25%	0.22
12/29/2015	3,188,020	0.7	\$49.73	0.08%	1.08%	2.13%	1.97%	-1.89%	(1.65)
12/30/2015	3,534,793	0.8	\$48.38	-2.71%	-0.71%	-2.38%	-2.21%	-0.51%	(0.44)
12/31/2015	3,672,312	0.8	\$48.58	0.41%	-0.94%	1.02%	0,72%	-0.30%	(0.26)
1/4/2016	5,909,308	1.3	\$49.13	1,13%	-1.51%	0.94%	0,57%	0.57%	0.49
1/5/2016	4,130,002	0.9	\$48.52	-1,24%	0.20%	0.50%	0.42%	-1.66%	(1.44)
1/6/2016	10,750,092	2.4	\$43.77	-9.79%	-1.28%	-6.70%	-6.05%	-3.74%	(3.24)
1/7/2016	13,733,204	3.1	\$40.11	-8.36%	-2.37%	-3.63%	-3.59%	-4.77%	(4.06)
1/8/2016	11,345,620	2.5	\$40,56	1,12%	-1.08%	-0.52%	-0.71%	1.84%	1.51
1/11/2016	10,090,936	2.3	\$37.75	-6.93%	0.09%	-4.34%	-3.97%	-2.96%	(2.43)
1/12/2016	25,166,307	5.6	\$37.33	-1.11%	0.78%	-1.78%	-1.59%	0.48%	0.39
1/13/2016	15,524,658	3.5	\$34.86	-6.62%	-2.49%	-2.46%	-2.61%	-4.01%	(3.29)
1/14/2016	15,146,697	3.4	\$35.00	0.40%	1.67%	4.04%	3.83%	-3.43%	(2.76)
1/15/2016	15,072,222	3.4	\$32.02	-8,51%	-2.16%	-4.28%	-4.25%	-4.26%	(3.39)
1/19/2016	13,316,079	3.0	\$30.85	-3.65%	0.05%	-4.96%	-4.59%	0.94%	0.73
1/20/2016	16,346,359	3.7	\$30.54	-1.00%	-1.15%	-1.36%	-1.54%	0.54%	0.42
1/21/2016	11,363,212	2.5	\$33.55	9.86%	0.52%	6.80%	6.03%	3.83%	2.99
1/22/2016	13,440,831	3.0	\$35.48	5.75%	2.03%	2.95%	2.91%	2.84%	2.18
1/25/2016	9,761,636	2.2	\$32.31	-8.93%	-1.56%	-7.77%	-7.50%	-1.43%	(1.09)
1/26/2016	10,236,943	2.3	\$34.59	7.06%	1.41%	4.58%	4.40%	2.66%	2.02
1/27/2016	10,505,460	2.4	\$35.53	2.72%	-1.08%	1.88%	1.50%	1,22%	0.92
1/28/2016	12,159,688	2.7	\$37.25	4.84%	0.56%	4.44%	4.18%	0.66%	0.50
1/29/2016	9,588,350	2.1	\$39.09	4.94%	2,48%	4.26%	4.32%	0.62%	0.47
2/1/2016	9,735,242	2.2	\$38.25	-2.15%	-0.04%	-2.71%	-2.64%	0,49%	0.37
2/2/2016	16,811,930	3.8	\$39.26	2.64%	-1.87%	-4.71%	-4.82%	7.46%	5.63
2/3/2016	14,322,918	3.2	\$42,49	8.23%	0.53%	6.57%	6.21%	2.02%	1.53
2/4/2016	13,684,732	3.1	\$41.36	-2.66%	0.17%	-2.07%	-2.02%	-0.64%	(0.48)
2/5/2016	8,552,952	1.9	\$40.77	-1.43%	-1.84%	-5.63%	-5.75%	4.33%	3.26

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Anadarko Securities Litigation

_		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis ((3)
D. 11	Reported	- 66006	Closing	B. W. Z.	0.00.000		Predicted	Abnormal	2 24 000 245
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
2/8/2016	8,300,482	1.9	\$40.05	-1.77%	-1.41%	-3.76%	-3.81%	2.05%	1.51
2/9/2016	12,085,704	2.7	\$37.24	-7.02%	-0.05%	-3,49%	-3.35%	-3,67%	(2.70)
2/10/2016	10,903,111	2.4	\$37.39	0.40%	0.02%	-2.07%	-2.04%	2.45%	1.79
2/11/2016	16,470,278	3.7	\$35.68	-4.57%	-1.21%	-0.06%	-0.26%	-4.31%	(3.14)
2/12/2016	7,516,975	1.7	\$37.81	5.97%	1.96%	2.30%	2.44%	3.53%	2.52
2/16/2016	6,102,323	1.4	\$39,09	3,39%	1.68%	1.80%	1.98%	1.41%	0.99
2/17/2016	10,239,547	2.3	\$40.50	3,61%	1.66%	3.64%	3.74%	-0.14%	(0.10)
2/18/2016	11,707,987	2.6	\$37.03	-8.57%	-0.46%	-2.01%	-2.04%	-6.53%	(4.61)
2/19/2016	12,914,962	2.9	\$35.35	-4.54%	0.01%	-0.84%	-0.88%	-3.66%	(2.50)
2/22/2016	7,094,628	1.6	\$37,35	5.66%	1.45%	6.53%	6.44%	-0.79%	(0.53)
2/23/2016	6,104,428	1,4	\$35.30	-5.49%	-1.24%	-5.45%	-5.54%	0.06%	0,04
2/24/2016	8,671,634	1.9	\$36.21	2.58%	0.45%	2.97%	2.83%	-0.25%	(0.17)
2/25/2016	8,422,895	1.9	\$37.64	3.95%	1.16%	-0.23%	-0.10%	4.05%	2.73
2/26/2016	7,059,736	1.6	\$38.02	1.01%	-0.18%	2.49%	2.25%	-1.24%	(0.82)
2/29/2016	7,924,190	1,8	\$37,95	-0.18%	-0.80%	-1.49%	-1.67%	1.49%	0.99
3/1/2016	10,922,066	2.4	\$40.11	5.69%	2.39%	1.45%	1.81%	3.88%	2.57
3/2/2016	9,839,747	2.2	\$42.65	6.33%	0.43%	7.69%	7.27%	-0.93%	(0.61)
3/3/2016	9,478,145	2.1	\$42.98	0.77%	0.36%	5.04%	4.71%	-3.94%	(2.58)
3/4/2016	13,165,306	2.9	\$45,26	5.30%	0.33%	4.90%	4.49%	0.81%	0.52
3/7/2016	9,934,588	2.2	\$45.10	-0.24%	0.10%	2.52%	2.26%	-2.50%	(1.62)
3/8/2016	7,708,058	1.7	\$41.14	-8.78%	-1.11%	-7.42%	-7.19%	-1.59%	(1.03)
3/9/2016	7,703,333	1.7	\$42.32	2.87%	0.52%	3.34%	3.12%	-0.25%	(0.16)
3/10/2016	7,037,015	1.6	\$42.50	0.43%	0.02%	0.25%	0.13%	0.29%	0.19
3/11/2016	14,798,338	3.3	\$46.29	8.92%	1.67%	4.74%	4.74%	4.17%	2.69
3/14/2016	6,291,621	1.4	\$46.31	0.04%	-0.12%	-1.51%	-1.54%	1.58%	1.01
3/15/2016	5,491,523	1.2	\$47.02	1.53%	-0.18%	-0.96%	-1.04%	2.58%	1.64
3/16/2016	9,017,663	2.0	\$48.71	3,59%	0.57%	3.37%	3.21%	0,38%	0.24
3/17/2016	6,830,758	1.5	\$49.26	1.13%	0.66%	2.76%	2.69%	-1,56%	(0.99)
3/18/2016	10,288,354	2.3	\$48.76	-1.02%	0.44%	0.61%	0.62%	-1.63%	(1.03)
3/21/2016	5,803,845	1.3	\$48.61	-0.31%	0.10%	-0.41%	-0.44%	0.13%	0.08
3/22/2016	4,666,366	1.0	\$48.01	-1.23%	-0.07%	-0.77%	-0.83%	-0 41%	(0,26)
3/23/2016	6,318,950	1.4	\$46.29	-3.58%	-0.64%	-5.26%	-5.15%	1.57%	0.99
3/24/2016	9,106,981	2.0	\$46.27	-0.04%	-0.04%	1,17%	0.97%	-1.01%	(0.64)
3/28/2016	6,189,351	1.4	\$45.63	-1.38%	0.06%	-1.84%	-1.76%	0.38%	0.24
3/29/2016	5,442,996	1.2	\$46.23	1.31%	0.90%	0.43%	0.59%	0.73%	0.46
3/30/2016	5,345,369	1.2	\$46.39	0.35%	0.45%	0.43%	0.45%	-0.10%	(0.06)
3/31/2016	5,755,311	1,3	\$46.57	0.39%	-0.20%	1,65%	1.34%	-0.95%	(0.60)
4/1/2016	3,379,912	0.8	\$45.81	-1.63%	0.63%	-2 28%	-1,96%	0.33%	0.21
4/4/2016	4,417,957	1.0	\$44.59	-2,66%	-0.30%	-1.66%	-1.72%	-0.95%	(0.60)
4/5/2016	4,394,366	1.0	\$44.10	-1.10%	-1,01%	0.59%	0.08%	-1.18%	(0.74)
4/6/2016	9,776,929	2.2	\$45.71	3.65%	1.09%	3.13%	3.11%	0.54%	0.34

Exhibit D

		nadarko Petr	oleum Corporation		Market &	Industry	Regression Analysis (3)		
	Reported	T. O. UII	Closing	17.00	P-0.25 THE	A Complete	Predicted	Abnormal	T
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	1-statistic (4)
4/7/2016	4,398,898	1.0	\$45.75	0.09%	-1.19%	-0.72%	-1.18%	1.27%	0.80
4/8/2016	5,945,871	1.3	\$48.29	5.55%	0.28%	2.94%	2.66%	2,89%	1.82
4/11/2016	4.063,930	0.9	\$47.53	-1.57%	-0.27%	1.68%	1.35%	-2.93%	(1.83)
4/12/2016	5,954,414	1.3	\$50.11	5.43%	0.97%	7.97%	7.51%	-2.08%	(1.29)
4/13/2016	4,407,755	1.0	\$49,32	-1.58%	1.02%	-0.57%	-0.25%	-1.33%	(0.82)
4/14/2016	4,599,698	1.0	\$49.46	0.28%	0.03%	1.10%	0.88%	-0.60%	(0.37)
4/15/2016	4,429,114	1.0	\$48.91	-1.11%	-0.10%	-1.55%	-1.56%	0.44%	0.28
4/18/2016	4,671,202	1.0	\$50.13	2.49%	0.66%	2.06%	1.96%	0.54%	0.33
4/19/2016	6,730,831	1.5	\$50.53	0.80%	0.31%	3,34%	3,00%	-2.20%	(1.37)
4/20/2016	6,909,763	1.5	\$50.66	0.26%	0.08%	1.23%	0.99%	-0.74%	(0.46)
4/21/2016	7,799,487	1.7	\$50.03	-1.24%	-0.52%	-1.19%	-1.39%	0.14%	0.09
4/22/2016	6,365,023	1.4	\$52.55	5.04%	0.01%	2.95%	2.49%	2.54%	1.58
4/25/2016	5,187,068	1.2	\$51.09	-2.78%	-0.18%	-2.10%	-2.09%	-0.68%	(0.42)
4/25/2016	5,383,425	1.2	\$52.36	2.49%	0.19%	3.32%	2.91%	-0.42%	(0.26)
4/27/2016	7,606,778	1.7	\$54.78	4.62%	0.17%	2.38%	2.06%	2.56%	1.59
4/28/2016	4,145,440	0.9	\$53.20	-2.88%	-0.92%	-2,78%	-2.97%	0.08%	0.05
4/28/2016		117,70							
	5,051,354	1.1	\$52.76	-0.83%	-0.51%	-0.22%	-0.51%	-0.32%	(0,20)
5/2/2016 5/3/2016	5,067,521 9,411,226	1.1	\$51.95 \$50.10	-1.54% -3.56%	0.78%	-0.92% -4.28%	-0.70% -4.32%	-0.84% 0.75%	(0.52)
5/4/2016	9,231,029	2.1	\$47.02	-6.15%	-0.86% -0.57%	-2,30%	-2.42%	-3.73%	(2.29)
5/5/2016	9,415,787	2.1	\$46.10	-1.96%	0.00%	1.51%	1.22%	-3.17%	(1.93)
5/6/2016	5,660,297	1.3	\$46.56	1.00%	0.33%	-2.27%	-2.12%	3.11%	1.88
5/9/2016	4,152,244	0.9	\$44.99	-3,37%	0.08%		-2.69%		
5/10/2016		0.9		4.49%		-2.85%		-0.68%	(0.41)
5/11/2016	4,047,359		\$47.01		1.25%	2,95%	2.96%	1.53%	0.92
	4,912,373	1.1	\$47.92	1,94%	-0.90%	1.45%	0.82%	1.12%	0.67
5/12/2016	6,733,603	1.5	\$48.25	0.69%	-0.01%	-0.13%	-0.27%	0.96%	0.58
5/13/2016	6,062,778	1.4	\$47.72	-1.10%	-0.84%	-1.68%	-1.98%	0.88%	0.53
5/16/2016	7,049,727	1.6	\$49.17	3.04%	0.99%	1,92%	1.96%	1.08%	0.65
5/17/2016	4,180,841	0.9	\$49.74	1.16%	-0.91%	0.20%	-0.30%	1.46%	0.88
5/18/2016	3,620,698	0.8	\$48.94	-1.61%	0.04%	-0.89%	-0.93%	-0.68%	(0.41)
5/19/2016	3,792,017	0.8	\$49.22	0.57%	-0.37%	-0.21%	-0.46%	1.03%	0.62
5/20/2016	3,119,409	0.7	\$49.30	0.16%	0.62%	0.55%	0.60%	-0.43%	(0.26)
5/23/2016	4,022,284	0.9	\$49.20	-0.20%	-0.21%	0.15%	-0.07%	-0.14%	(0.08)
5/24/2016	3,544,080	0.8	\$50.24	2.11%	1,37%	1,11%	1.38%	0.73%	0.44
5/25/2016	6,274,351	1.4	\$52.09	3.68%	0.70%	2.61%	2.50%	1.18%	0.71
5/26/2016	4,725,954	1.1	\$52.28	0.36%	-0.01%	-0.97%	-1.00%	1.37%	0.82
5/27/2016	3,883,872	0.9	\$51.53	-1.43%	0.45%	-0.42%	-0.33%	-1.10%	(0.66)
5/31/2016	4,306,422	1.0	\$51.86	0.64%	-0.09%	-0.19%	-0.34%	0.98%	0.58
6/1/2016	4,014,955	0.9	\$52.40	1.04%	0.13%	-0,13%	-0.19%	1.23%	0.74
6/2/2016	3,713,739	0.8	\$51.69	-1.36%	0.29%	-0.05%	-0.05%	-1.30%	(0.78)
6/3/2016	3,144,888	0.7	\$51,44	-0.48%	-0.29%	-1.29%	-1.40%	0.92%	0.55

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-		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis (3)
	Reported		Closing	- U A-		15322	Predicted	Abnormal	A STATE OF THE STA
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4
6/6/2016	3,572,628	0.8	\$53.28	3.67%	0.49%	3.37%	3.12%	0.56%	0.33
6/7/2016	6,953,994	1.6	\$55.22	3.64%	0.13%	3.42%	3.04%	0.60%	0.36
6/8/2016	4,169,057	0.9	\$55.18	-0.07%	0.35%	0.13%	0.12%	-0.19%	(0.11
6/9/2016	2.959,924	0.7	\$54.48	-1.27%	-0.17%	-1.25%	-1.32%	0.06%	0.03
6/10/2016	5,043,275	Lt	\$53.00	-2.72%	-0.92%	-4.05%	-4.15%	1,43%	0.86
6/13/2016	3,904,249	0.9	\$53,08	0.15%	-0.78%	-0.26%	-0.64%	0.79%	0.47
6/14/2016	3,187,397	0.7	\$53.70	1.17%	-0.17%	0.49%	0.26%	0.91%	0.54
6/15/2016	2,955,006	0.7	\$53.38	-0.60%	-0.18%	-0.72%	-0.84%	0.24%	0.14
6/16/2016	4,468,980	1.0	\$53.30	-0.15%	0.33%	-1.93%	-1.76%	1.61%	0.96
6/17/2016	4,845,146	1.1	\$54,86	2.93%	-0.33%	2.28%	1.84%	1.09%	0.65
6/20/2016	4,383,867	1.0	\$54.85	-0.02%	0.58%	2,55%	2.42%	-2.44%	(1.45
6/21/2016	2,216,471	0.5	\$55.51	1,20%	0.28%	1.40%	1,25%	-0.04%	(0.03
6/22/2016	2,390,798	0.5	\$54.39	-2.02%	-0.16%	-0.93%	-1.02%	-1.00%	(0.59
6/23/2016	3,792,940	0.8	\$55.52	2.08%	1,34%	2.26%	2.40%	-0.33%	(0.19
6/24/2016	8,010,912	1.8	\$52.83	-4.85%	-3.59%	-5.07%	-6.00%	1.16%	0.69
6/27/2016	8,149,924	1.8	\$49.50	-6.30%	-1.81%	-4.59%	-4.90%	-1.40%	(0.83
6/28/2016	5,095,129	1.1	\$51.13	3.29%	1.80%	3.98%	4.13%	-0.83%	(0.49
6/29/2016	5,373,529	1.2	\$53.19	4.03%	1.72%	2,75%	2.97%	1.06%	0.63
6/30/2016	4,838,163	LI	\$53.25	0.11%	1.36%	-0.15%	0.22%	-0.11%	(0.00
7/1/2016	4,387,319	1.0	\$54.89	3.08%	0.21%	1.72%	1.52%	1.56%	0.92
7/5/2016	3,952,378	0.9	\$53.61	-2.33%	-0.68%	-3.08%	-3.16%	0.83%	0.49
7/6/2016	4,432,612	1.0	\$55.19	2.95%	0.57%	0.79%	0.80%	2.15%	1.20
7/7/2016	4,874,013	1.1	\$55.22	0.05%	-0.08%	-0.99%	-1.03%	1.09%	0.64
7/8/2016	4,035,312	0.9	\$55.91	1.25%	1.53%	1.17%	1.49%	-0.24%	(0.14
7/11/2016	2,990,400	0.7	\$55.86	-0.09%	0.34%	-0.29%	-0.24%	0.15%	0.09
7/12/2016	4,353,944	1.0	\$57.42	2.79%	0.70%	4.35%	4.12%	-1.32%	(0.78
7/13/2016	4,856,777	1.1	\$56.10	-2.30%	0.02%	-2.01%	-1.93%	-0.37%	(0.22
7/14/2016	3,397,409	0.8	\$55,52	-1.03%	0.53%	0.48%	0.51%	-1.54%	(0.9)
7/15/2016	4,280,089	1.0	\$55.01	-0.92%	-0.09%	-0.28%	-0.40%	-0.52%	(0.30
7/18/2016	4,760,512	1.1	\$55.10	0.16%	0.24%	0.04%	0.00%	0.17%	0.10
7/19/2016	4,321,915	1.0	\$53.85	-2.27%	-0.14%	-1.57%	-1.59%	-0.67%	(0.40
7/20/2016	4,051,080	0.9	\$54.52	1.24%	0.44%	0.43%	0.43%	0.82%	0.48
7/21/2016	3,979,044	0.9	\$54.17	-0.64%	-0.36%	-1.01%	-1.16%	0.52%	0.30
7/22/2016	3,342,718	0.7	\$54.64	0.87%	0.46%	0.46%	0.46%	0.40%	0.24
7/25/2016	4,483,269	1.0	\$53.87	-1.41%	-0.30%	-2.77%	-2.75%	1.34%	0.79
7/26/2016	3,418,177	0.8	\$54.74	1.62%	0.04%	1,57%	1.34%	0.28%	0.16
7/27/2016	5,664,609	1.3	\$53.80	-1.72%	-0.12%	-1.81%	-1.81%	0.10%	0.00
7/28/2016	6,067,778	1.4	\$53.36	-0.82%	0.17%	0.77%	0.64%	-1.46%	(0.80
7/29/2016	5,355,308	1.2	\$54.53	2.19%	0.16%	2.43%	2.15%	0.05%	0.03
8/1/2016	6,163,435	1.4	\$51.85	-4.91%	-0.13%	-4.14%	-3.96%	-0.95%	(0.50
8/2/2016	4,756,650	1/1	\$51.63	-0.42%	-0.63%	0.12%	-0.25%	-0.18%	(0.11

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		nadarko Petro	oleum Corporation		Market &	Industry	Regression Analysis (3)		
- 5	Reported	F. K.W.	Closing		2000		Predicted	Abnormal	
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
8/3/2016	3,969,311	0.9	\$52.68	2.03%	0.34%	2.92%	2.66%	-0,63%	(0,37
8/4/2016	5,453,744	1.2	\$51.27	-2.68%	0.05%	-0.42%	-0.51%	-2.17%	(1.28)
8/5/2016	6,992,495	1.6	\$52.77	2.93%	0.86%	1.15%	1.20%	1.73%	1.02
8/8/2016	4,532,868	1.0	\$53.05	0.53%	-0.08%	1,62%	1.31%	-0.78%	(0.46
8/9/2016	5,028,816	1.1	\$52.75	-0.57%	0.04%	-0.47%	-0.57%	0.01%	0.00
8/10/2016	3,563,552	0.8	\$52.63	-0.23%	-0.25%	-1.17%	-1.32%	1,09%	0.64
8/11/2016	3,675,303	0.8	\$54.01	2.62%	0.49%	2,51%	2,31%	0.31%	0.18
8/12/2016	3,710,155	0.8	\$54.28	0.50%	-0.07%	0.45%	0.23%	0.27%	0.16
8/15/2016	2,877,512	0.6	\$54.60	0,59%	0.29%	1.72%	1.52%	-0,93%	(0.55
8/16/2016	3,929,361	0.9	\$54.15	-0.82%	-0.53%	1.48%	1.01%	-1.84%	(1.08
8/17/2016	2,522,516	0.6	\$54.38	0.42%	0.21%	0.48%	0.34%	0.09%	0.05
8/18/2016	4,891,284	1.1	\$55.94	2.87%	0.22%	2.93%	2.57%	0.30%	0.18
8/19/2016	3,165,448	0.7	\$54.83	-1,98%	-0.13%	-0.41%	-0.60%	-1.38%	(0.82
8/22/2016	3,158,955	0.7	\$54.27	-1.02%	-0.05%	-1.50%	-1.57%	0.55%	0.33
8/23/2016	3,421,917	0.8	\$56.05	3.28%	0.20%	1.57%	1.32%	1.96%	1.16
8/24/2016	4,292,371	1.0	\$54.16	-3.37%	-0.52%	-0.78%	-1.08%	-2.29%	(1.35
8/25/2016	2,759,991	0.6	\$55,15	1.83%	-0.13%	-0.09%	-0.31%	2.14%	1,25
8/26/2016	2,594,481	0.6	\$55.26	0.20%	-0.16%	-0.30%	-0.51%	0.71%	0.42
8/29/2016	2,521,409	0.6	\$56,22	1.74%	0.54%	0.85%	0.80%	0.94%	0.42
8/30/2016		0.7	\$55.78	-0.78%	-0.18%	-0.66%	-0.86%	0.08%	0.05
	3,252,923		127.110.2					-1.46%	
8/31/2016	5,256,689	1,2	\$53.47	-4.14%	-0.22%	-2.63%	-2.68%		(0.86
9/1/2016	5,195,640	1.2	\$53.54	0.13%	0.00%	-0.40%	-0.55%	0.68%	0.40 2.37
9/2/2016	6,095,531	1.4	\$56.49	5.51%	0.43%	1.63%	1.50%	4.01%	The state of the
9/6/2016	3,586,960	0.8	\$57.19	1.24%	0.30%	1.12%	1.00%	0.23%	0.14
9/7/2016	4,185,021	0,9	\$57.18	-0.02%	0.01%	1.02%	0.77%	-0.79%	(0.46
9/8/2016	4,277,848	1.0	\$59.06	3.29%	-0.22%	4.12%	3.46%	-0.17%	(0.10
9/9/2016	4,632,587	1.0	\$57.77	-2.18%	-2.45%	-3.05%	-4.18%	1,99%	1.17
9/12/2016	3,139,417	0.7	\$57.79	0.12%	1.47%	0.88%	1.34%	-1.22%	(0.71
9/13/2016	33,186,622	7.4	\$57.59	-0.35%	-1,45%	-4,51%	-4.97%	4.63%	2.70
9/14/2016	14,741,610	3.3	\$55.62	-3.42%	-0.05%	-1.95%	-1.94%	-1.48%	(0.85
9/15/2016	6,970,935	1.6	\$56.93	2.36%	1.03%	1.29%	1.48%	0.87%	0.50
9/16/2016	5,478,011	1.2	\$57.52	1.04%	-0.38%	-0.37%	-0.66%	1.69%	0.97
9/19/2016	4,816,145	1.1	\$57.52	0.00%	0.00%	-1.34%	-1.35%	1.35%	0.78
9/20/2016	6,383,619	1.4	\$58.28	1.32%	0.03%	-0.89%	-0.92%	2.24%	1,28
9/21/2016	8,091,508	1,8	\$61.06	4.77%	1.09%	3.38%	3.44%	1.33%	0.76
9/22/2016	8,906,607	2.0	\$61.21	0.25%	0.65%	0.39%	0.55%	-0.30%	(0.17
9/23/2016	11,432,700	2.6	\$59.50	-2.79%	-0.57%	-2.64%	-2.77%	-0.03%	(0.02
9/26/2016	5,942,349	1,3	\$58,54	-1.61%	-0.85%	0.09%	-0.42%	-1.19%	(0.68
9/27/2016	6,082,682	1,4	\$58.27	-0.46%	0,65%	-1.74%	-1,38%	0.92%	0.52
9/28/2016	7,397,551	1.7	\$61.27	5.15%	0.55%	6,34%	5,84%	-0.70%	(0.40
9/29/2016	9,805,566	2.2	\$62.58	2.14%	-0.93%	1.02%	0.34%	1.79%	1,02

Exhibit D

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_		nadarko Petr	oleum Corporation		Market &	Industry		Regression Analysis ((3)
	Reported		Closing				Predicted	Abnormal	
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)
9/30/2016	8,027,580	1.8	\$63,36	1,25%	0.80%	1.10%	1.25%	-0.01%	(0.00
10/3/2016	4,690,830	1.1	\$63,42	0.09%	-0.31%	0.32%	0.03%	0.06%	0.04
10/4/2016	6.739,515	1.5	\$63.47	0.08%	-0.49%	-1,34%	-1.55%	1.63%	0.93
10/5/2016	5,628,023	1.3	\$64.14	1.06%	0.47%	2.24%	2.13%	-1.08%	(0.62
10/6/2016	4,537,658	1.0	\$63.85	-0.45%	0.05%	-0.30%	-0.34%	-0.11%	(0.06
10/7/2016	2,689,157	0.6	\$63.46	-0.61%	-0.32%	-1.23%	-1.36%	0:75%	0.43
10/10/2016	3,255,747	0.7	\$64.39	1.47%	0.46%	1.76%	1.72%	-0.26%	(0.15
10/11/2016	4,677,665	1.0	\$63.72	-1.04%	-1.24%	-1.72%	-2.26%	1.22%	0.70
10/12/2016	3,210,593	0.7	\$63.93	0.33%	0.12%	-0.21%	-0.21%	0.54%	0.31
10/13/2016	3,800,773	0.9	\$64.07	0.22%	-0.31%	-0.78%	-0.94%	1.16%	0.66
10/13/2016	2,592,322	0.6	\$63.37	-1.09%	0.02%	-0.55%	-0.57%	-0.52%	(0.30
10/14/2016				-1.36%	-0.30%	-1.28%	-1.39%	0.03%	0.02
	3,829,603	0.9	\$62.51						0.02
10/18/2016	2,830,088	0.6	\$62,97	0.74%	0.62%	0.29%	0.46%	0.27%	
10/19/2016	3.814,669	0,9	\$63.93	1.52%	0.23%	2.47%	2.25%	-0,73%	(0.42
10/20/2016	5,115,718	1.1	\$63.76	-0.27%	-0.13%	0.08%	-0.09%	-0.18%	(0.10
10/21/2016	4,063,470	0.9	\$63.54	-0.35%	-0.01%	-0.79%	-0.81%	0.47%	0.27
10/24/2016	3,030,534	0.7	\$62,99	-0.87%	0.48%	-0.91%	-0.67%	-0.19%	(0.11
10/25/2016	3,414,275	0.8	\$61.05	-3.08%	-0.38%	-1.86%	-1.97%	-1,11%	(0.64
10/26/2016	5,089,744	1.1	\$60.90	-0.25%	-0.17%	0.03%	-0.16%	-0.08%	(0.05
10/27/2016	7,811,691	1.7	\$61.42	0.85%	-0.29%	0.45%	0.15%	0.70%	0.40
10/28/2016	5,738,248	1.3	\$61,46	0.07%	-0.31%	-0.74%	-0.92%	0.99%	0.57
10/31/2016	5,883,774	1,3	\$59,44	-3.29%	-0.01%	-2.45%	-2.30%	-0.98%	(0.56
11/1/2016	7,891,559	1.8	\$59.95	0.86%	-0.68%	-0.21%	-0.63%	1.49%	0.85
11/2/2016	6.421,295	1.4	\$60.14	0.32%	-0.64%	-0.51%	-0.88%	1.20%	0.68
11/3/2016	4,534,482	1.0	\$60.25	0.18%	-0.41%	1.13%	0.73%	-0.55%	(0.32
11/4/2016	5,966,842	1.3	\$58.62	-2.71%	-0.16%	-1.12%	-1.18%	-1.53%	(0.89
11/7/2016	5,216,600	1.2	\$60.21	2.71%	2,22%	2.26%	3.05%	-0.34%	(0.20
11/8/2016	4,359,201	1.0	\$59.73	-0.80%	0.43%	-0.02%	0.11%	-0.91%	(0.53
11/9/2016	6,080,051	1,4	\$61.19	2.44%	1.11%	2,46%	2.68%	-0.23%	(0.14
11/10/2016	3,459,121	0.8	\$61,87	1.11%	0.20%	-0.28%	-0.24%	1.35%	0.79
11/11/2016	2,934,104	0.7	\$61.04	-1.34%	-0.14%	-2.47%	-2.38%	1.04%	0.60
11/14/2016	3,796,591	0.9	\$60.50	-0.88%	0.00%	0.96%	0.77%	-1.66%	(0.96
11/15/2016	9,026,050	2.0	\$62.56	3.41%	0,77%	4.67%	4.49%	-1.08%	(0.63
11/16/2016	3,305,642	0.7	\$61,94	-0.99%	-0.13%	-0.83%	-0.87%	-0.12%	(0.07
11/17/2016	3,862,440	0.9	\$61.45	-0.79%	0.47%	-1.58%	-1.23%	0.44%	0,27
11/18/2016	3,659,752	0.8	\$61.51	0.10%	-0.22%	1.06%	0.78%	-0.68%	(0.41
11/21/2016	4,781,838	1.1	\$64.03	4.10%	0.75%	3.25%	3.21%	0.89%	0.54
11/22/2016	4,510,467	1.0	\$64.05	0.03%	0.22%	-0.27%	-0.19%	0.22%	0.13
11/23/2016	3,399,479	0.8	\$65,00	1.48%	0.08%	1.35%	1.18%	0.31%	0.19
11/25/2016	2,425,416	0.5	\$63.75	-1,92%	0.39%	-1.16%	-0.87%	-1.05%	(0.64
11/28/2016	4,091,864	0.9	\$62.00	-2.75%	-0.51%	-2.81%	-2.84%	0.09%	0.06

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_		nadarko Petro	oleum Corporation		Market &	Industry	Regression Analysis (3)			
-	Reported	1. X vvi	Closing		10000	Name of the last	Predicted	Abnormal		
Date	Volume	xM (1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4)	
11/29/2016	6,681,775	1,5	\$60.16	-2.97%	0.16%	-1,42%	-1,24%	-1.73%	(1.06)	
11/30/2016	15,639,234	3.5	\$69.15	14.94%	-0.24%	10.57%	9.18%	5.76%	3.52	
12/1/2016	7.815,923	1.8	\$68.59	-0.81%	-0.35%	0.17%	-0.05%	-0.76%	(0.46)	
12/2/2016	3,668,960	0.8	\$68.56	-0.04%	0.04%	0.39%	0.33%	-0.37%	(0,22)	
12/5/2016	3.998.465	0.9	\$68.29	-0.39%	0.59%	1.18%	1.31%	-1.70%	(1.02)	
12/6/2016	4,115,408	0.9	\$68.21	-0.12%	0.34%	0.09%	0.17%	-0.29%	(0.17)	
12/7/2016	4,812,240	1.1	\$69.27	1.55%	1.34%	0.22%	0.73%	0.82%	0.49	
12/8/2016	3,800,278	0.9	\$70.26	1.43%	0.23%	0.46%	0.47%	0.96%	0.57	
12/9/2016	4,410,886	1.0	\$70.47	0.30%	0.59%	0.78%	0.95%	-0.65%	(0,39)	
12/12/2016	4,777,631	1.1	\$70.79	0.53%	-0.11%	0.23%	0.10%	0.43%	0.26	
12/13/2016	7,528,808	1.7	\$72.69	2.68%	0.67%	1.68%	1.84%	0.84%	0.51	
12/14/2016	5,383,092	1.2	\$70.68	-2.77%	-0.81%	-2,53%	-2.81%	0.05%	0.03	
12/15/2016	5,138,152	1.2	\$70.33	-0.50%	0.39%	0.33%	0.45%	-0.95%	(0.57)	
12/16/2016	8,414,775	1.9	\$70.61	0.40%	-0.17%	0.60%	0.45%	-0.05%	(0.03)	
12/19/2016	2,698,138	0.6	\$71.37	1.08%	0.20%	-0.11%	-0.06%	1,14%	0.69	
12/20/2016	4,520,957	1.0	\$70.97	-0.56%	0.38%	-0.32%	-0.14%	-0.42%	(0.26)	
12/21/2016	2,430,865	0.5	\$70.75	-0.31%	-0.24%	-0.21%	-0.35%	0.04%	0.02	
12/22/2016	2,730,567	0.6	\$70.77	0.03%	-0.17%	0.21%	0.08%	-0.05%	(0.03)	
12/23/2016	1,800,713	0.4	\$71.25	0.68%	0.13%	-0,33%	-0.28%	0.96%	0.59	
12/27/2016	1,875,931	0.4	\$71.54	0.41%	0.23%	0.49%	0.55%	-0.14%	(0.09)	
12/28/2016	2,095,761	0.5	\$70.64	-1.26%	-0.82%	-1.65%	-2.02%	0.76%	0.47	
12/29/2016	2,338,145	0.5	\$70.11	-0.75%	-0.02%	-0.72%	-0.74%	-0.01%	(0.01)	
12/30/2016	2,447,251	0.5	\$69.73	-0.54%	-0.46%	-0.79%	-1.02%	0.48%	0.30	
1/3/2017	3,980,018	0.9	\$70,25	0.75%	0.85%	1,38%	1.68%	-0.94%	(0.58)	
1/4/2017	3,681,112	0.8	\$70.81	0.80%	0,59%	0.03%	0.26%	0.54%	0.33	
1/5/2017	3,872,800	0.9	\$71.61	1.13%	-0.08%	0.47%	0.37%	0.76%	0.47	
1/6/2017	5,757,411	1.3	\$71.74	0.18%	0.38%	-0.43%	-0.26%	0.44%	0.28	
1/9/2017	4,167,751	0.9	\$69.98	-2.45%	-0.35%	-1.95%	-2.07%	-0.38%	(0.24)	
1/10/2017	4,141,560	0.9	\$69.58	-0.57%	0.00%	-0.02%	-0.05%	-0.52%	(0.32)	
1/11/2017	3,383,900	0.8	\$71,60	2.90%	0.29%	1.10%	1.16%	1.75%	1.10	
1/12/2017	3,132,659	0.7	\$71.49	-0.15%	-0.21%	-1.06%	-1.12%	0.96%	0.61	
1/13/2017	2,632,942	0,6	\$71.24	-0.35%	0.19%	0.08%	0.17%	-0.52%	(0.33)	
1/17/2017	2,547,420	0.6	\$70.72	-0.73%	-0.30%	0.84%	0.65%	-1.38%	(0.88)	
1/18/2017	4,029,899	0.9	\$69.89	-1.17%	0.19%	-0.21%	-0.09%	-1.08%	(0.70)	
1/19/2017	3,678,738	0.8	\$70.18	0.41%	-0.36%	-0.87%	-0.98%	1.40%	0.90	
1/20/2017	3,351,432	0.8	\$70.03	-0.21%	0.34%	0.49%	0.63%	-0.84%	(0.54)	
1/23/2017	2,592,341	0.6	\$69.86	-0.24%	-0.27%	-1.13%	-1.15%	0.91%	0.60	
1/24/2017	3,449,795	0.8	\$71.18	1.89%	0.66%	0.83%	1.10%	0.79%	0.52	
1/25/2017	3,592,415	0.8	\$70.67	-0.72%	0.80%	0.31%	0.67%	-1.39%	(0.92)	
1/26/2017	2,931,033	0.7	\$71.14	0.67%	-0.07%	0.48%	0.46%	0.20%	0.13	
1/27/2017	2,474,135	0.6	\$70.01	-1,59%	-0.08%	-1.34%	-1.23%	-0.35%	(0.24)	

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Anadarko Securities Litigation

		nadarko Petri	oleum Corporation		Market &	Industry		egression Analysis (3)
	Reported	J. J.	Closing		7.7.	- 17 17 17 17 17 17 17	Predicted	Abnormal	E
Date	Volume	xM(1)	Price	Return	S&P 500	Peer Group (2)	Return	Return	t-statistic (4
1/30/2017	4,463,010	1.0	\$68.83	-1.69%	-0,60%	-2.95%	-2.92%	1.24%	0.83
1/31/2017	5,373,847	1.2	\$69.53	1.02%	-0.09%	0.58%	0.53%	0.48%	0.33
2/1/2017	6,303,374	1.4	\$68.36	-1.68%	0.05%	-0.78%	-0.65%	-1.03%	(0.70
2/2/2017	5,207,496	1,2	\$69.10	1.08%	0.06%	0.79%	0.78%	0.30%	0,2
2/3/2017	4,969,330	1.1	\$70.40	1.88%	0.74%	1.63%	1.79%	0.09%	0.0
2/6/2017	3,189,781	0.7	\$69.10	-1.85%	-0.21%	-1.98%	-1.84%	-0.01%	(0.0)
2/7/2017	4,494,988	1.0	\$67.14	-2.84%	0.03%	-2.42%	-2.14%	-0.70%	(0.4
2/8/2017	4,179,267	0.9	\$67.15	0.01%	0.10%	0.17%	0.22%	-0,20%	(0.1
2/9/2017	2,824,156	0.6	\$68.42	1.89%	0.59%	1.63%	1.71%	0.18%	0.1
2/10/2017	4,513,042	1.0	\$69.34	1.34%	0.36%	1.03%	1.09%	0.26%	0.1
2/13/2017	3,069,435	0.7	\$68.14	-1.73%	0,55%	-0.51%	-0.21%	-1.52%	(1.0
2/14/2017	4,310,342	1.0	\$68.33	0.28%	0.43%	0.25%	0.41%	-0.13%	(0.0)
2/15/2017	5,561,024	1.2	\$67.52	-1.19%	0.51%	-0.99%	-0,63%	-0.55%	(0.3
2/16/2017	4.962,225	1.1	\$66.60	-1.36%	-0.08%	-1.22%	-1.15%	-0.21%	(0.1
2/17/2017	3,455,908	0.8	\$66,77	0.26%	0.17%	-0,22%	-0.12%	0.38%	0.2
2/21/2017	3,858,068	0.9	\$67,21	0.66%	0.60%	1.07%	1.20%	-0.54%	(0.3
2/22/2017	5,040,618	1,1	\$65.84	-2.04%	-0.10%	-2.32%	-2.16%	0.12%	0.0
2/23/2017	3,308,254	0.7	\$65.98	0.21%	0.05%	-0.20%	-0.17%	0.38%	0.2
2/24/2017	4,833,040	1.1	\$64.77	-1.83%	0.17%	-0.89%	-0.72%	-1.12%	(0.8
2/27/2017	5,338,747	1.2	\$64.90	0.20%	0.12%	0.50%	0.53%	-0.33%	(0.2
2/28/2017	4,246,035	1.0	\$64.65	-0.39%	-0.25%	-0.49%	-0.49%	0.11%	0.0
3/1/2017	3,908,441	0.9	\$66.02	2.12%	1.39%	2.18%	2.48%	-0.36%	(0.2
3/2/2017	4,619,255	1.0	\$64.09	-2,92%	-0.58%	-1.57%	-1.57%	-1.35%	(1.0
3/3/2017	7,090,806	1.6	\$63.21	-1.37%	0.05%	-0.19%	-0.14%	-1.24%	(0,9
3/6/2017	4,957,626	1.1	\$63,25	0.14%	-0.33%	0.56%	0.45%	-0.30%	(0.2
3/7/2017	4,934,796	1.1	\$63.16	-0.14%	-0.28%	-1.27%	-1.24%	1.10%	0.8
3/8/2017	7,999,335	1.8	\$61.40	-2.79%	-0.20%	-4.69%	-4.40%	1.61%	1.2
3/9/2017	5,747,687	1.3	\$61.94	0.88%	0.08%	2.03%	1,93%	-1.05%	(0.8
3/10/2017	4,391,871	1.0	\$61.89	-0.08%	0.33%	-0.76%	-0.64%	0.56%	0.4
3/13/2017	4,240,161	0.9	\$62.82	1.50%	0.07%	0.38%	0.40%	1.10%	0.9
3/14/2017	4,491,997	1.0	\$61.81	-1.61%	-0.33%	-1.45%	-1.39%	-0.22%	(0.1
3/15/2017	5,356,386	1.2	\$64.08	3.67%	0.84%	2,55%	2.59%	1.08%	0.9
3/16/2017	2,983,937	0.7	\$63.40	-1.06%	-0.16%	-0.74%	-0.67%	-0.39%	(0.3
3/17/2017	3,666,876	0.8	\$63.25	-0.24%	-0.13%	-0.29%	-0.24%	0.00%	0.0
3/20/2017	3,419,155	0.8	\$62.84	-0.65%	-0.20%	-0.29%	-0.25%	-0.40%	(0.3
3/21/2017	3,048,145	0.7	\$61.82	-1.62%	-1,23%	-1,39%	-1.40%	-0.23%	(0.1
3/22/2017	2,542,999	0.6	\$61.63	-0.31%	0.19%	-0.36%	-0.29%	-0.02%	(0.0)
3/23/2017	4,039,234	0.9	\$60.79	-1,36%	-0.10%	-0.55%	-0.51%	-0.86%	(0.7
3/24/2017	3,559,012	0.8	\$60.34	-0.74%	-0.08%	-0.10%	-0.08%	-0.66%	(0.5
3/27/2017	3,512,404	0.8	\$59.94	-0.66%	-0.10%	-0.41%	-0.37%	-0.29%	(0.2
3/28/2017	4,473,495	1.0	\$61,14	2.00%	0.73%	2.65%	2.62%	-0.62%	(0.5

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	A	nadarko Petro	oleum Corporation		Market &	Industry	I	Regression Analysis (3)
Date	Reported Volume	xM (1)	Closing Price	Return	S&P 500	Peer Group (2)	Predicted Return	Abnormal Return	t-statistic (4)
e-m-y	1 300 4000	44.4	1,1,000		222	rest satisfy (a)	13.73.00 %	11,775,00	7.0000000000000000000000000000000000000
3/29/2017	3,912,196	0.9	\$62.45	2.14%	0.13%	2,95%	2.83%	-0,68%	(0.59)
3/30/2017	5,742,258	1.3	\$62,17	-0.45%	0.30%	0.25%	0.29%	-0.74%	(0.64)
3/31/2017	3,782,021	0.8	\$62,00	-0.27%	-0.23%	-0.05%	-0.05%	-0.22%	(0.19)
4/3/2017	2.581,435	0.6	\$61.79	-0.34%	-0.16%	-0.42%	-0.40%	0.06%	0.05
4/4/2017	3,132,144	0.7	\$62.71	1.49%	0.07%	1,69%	1.64%	-0.15%	(0.13)
4/5/2017	6,442,906	1.4	\$62,85	0.22%	-0,30%	-1.05%	-1.01%	1,23%	1.07
4/6/2017	2,673,076	0.6	\$62.89	0.06%	0.22%	1.64%	1.62%	-1.55%	(1.34)
4/7/2017	2,205,071	0.5	\$62.43	-0.73%	-0.08%	-0.56%	-0.52%	-0.21%	(0.18)
4/10/2017	2,239,403	0.5	\$62.89	0.74%	0.07%	1.57%	1.53%	-0.79%	(0.68)
4/11/2017	2,864,501	0.6	\$62.90	0.02%	-0.13%	0.02%	0.04%	-0.02%	(0,02)
4/12/2017	2,470,750	0.6	\$62.54	-0.57%	-0.37%	-0.69%	-0.66%	0.09%	0.07
4/13/2017	4,660,881	1.0	\$61.09	-2.32%	-0.68%	-2.39%	-2.31%	-0.01%	(0.01)
4/17/2017	3,240,193	0.7	\$61,21	0.20%	0.86%	0.08%	0.16%	0.03%	0.03
4/18/2017	3,353,646	0.8	\$60.41	-1.31%	-0.29%	-1.70%	-1.61%	0.30%	0.27
4/19/2017	4,384,582	1.0	\$59.13	-2.12%	-0.16%	-2.32%	-2.24%	0.12%	0.11
4/20/2017	3,789,814	0.8	\$59.00	-0.22%	0.76%	0.39%	0.46%	-0.68%	(0.62)
4/21/2017	3,720,303	0.8	\$59.29	0.49%	-0.30%	0.05%	0.07%	0.42%	0.38
4/24/2017	3,273,916	0.7	\$59,37	0.13%	1.09%	0.03%	0.12%	0.01%	0.01
4/25/2017	3,000,946	0.7	\$60.08	1 20%	0.61%	1.79%	1.82%	-0.62%	(0.56)
4/26/2017	2,744,976	0.6	\$59.96	-0.20%	-0.05%	-0.51%	-0.45%	0.25%	0.23
4/27/2017	14,106,206	3.2	\$57.12	-4.74%	0.07%	-2.15%	-2.07%	-2.66%	(2.43)
4/28/2017	5,059,768	1.1	\$57.02	-0.18%	-0.19%	-0.10%	-0.06%	-0.12%	(0.10)
5/1/2017	4,931,206	1.1	\$56.67	-0.61%	0.17%	-0.46%	-0.41%	-0.20%	(0.18)
5/2/2017	5,537,330	1.2	\$56,28	-0.69%	0.12%	-1.12%	-1.07%	0.38%	0.34
5/3/2017	22,118,227	5.0	\$51.95	-7.69%	-0.11%	0.24%	0.28%	-7.97%	(7.24)

⁽¹⁾ Multiple of Class Period median daily volume (i.e., x times medain volume)

⁽²⁾ Peer Group, equally weighted returns: Apache, Chesapeake, Chevron, ConocoPhillips, Devon, EOG, Hess, Marathon Oil, Noble Energy, Occidental and Pioneer Natural

⁽³⁾ Two-Factor Model (S&P 500 and Peer Group) with control period 252-days prior to event, excluding days with earnings announcements

 ⁽⁴⁾ It-statistic! > 1.96, statistically significant at the 5% level based on a two-tailed test (**)
 It-statistic! > 1.645, statistically significant at the 10% level based on a two-tailed test, or 5% level based on a one-tailed test (*)